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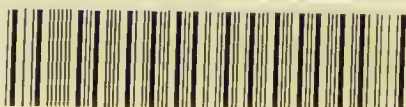
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PRACTICAL SYNOPSIS

OF THE

MATERIA ALIMENTARIA,

AND

MATERIA MEDICA.

BY THE AUTHOR OF THE

THESAURUS MEDICAMINUM.

Richard F. ...
VOL. I.



LONDON,

PRINTED FOR R. BALDWIN, AND L. B. SEELEY,

PATER-NOSTER ROW.

MDCCXCVII.

P R E F A C E.

THE favourable manner in which the public has received the *Thesaurus Medicaminum*, has encouraged the Author of that work to undertake the present publication; which is intended to exhibit a concise account of such substances from the Animal, Vegetable, and Mineral Kingdom, as are used either for food or medicine. Several works of this kind have already been published in this country. The most distinguished among them are those which have come from the hands of *Lewis, Donald Monro,*
A 2 and

and *Cullen*. These works are deservedly held in high estimation, not only in this, but in other countries. Each of them has its peculiar usefulness; and each of them merits a place in a physician's library: But with all their excellences, they have not rendered unnecessary, a treatise on the *Materia Medica*, upon such a plan as that which is now brought forward.

By far the greatest portion of *Lewis's* *Experimental History* of the *Materia Medica*, and of *Monro's* *Treatise on Medical Chymistry*, consists of details of pharmaceutical operations and chemical analyses, and histories of the sensible and chemical properties of the different sub-

substances used in medicine. These inquiries, it must be allowed, are of great value, and no person who is unacquainted with them, can be said to be duly qualified to undertake the cure of diseases. They belong properly to such elementary treatises; but these from their very nature, cannot be equally explicit upon practical points. Besides, the arrangement adopted in these treatises, is calculated rather for the use of the student, than of the practitioner.

Cullen's great work---that work which exhibits, in almost every page, the strongest proofs of the experienced practitioner as well as of the man of science---comes nearest

to the plan we propose. Our arrangement is for the most part his; and his method of treating each subject, with a reference to its employment in the cure of diseases, we have followed. If his book had not been swelled out to so great a bulk, by the frequent introduction of physiological and pathological disquisitions; and if, moreover, it had been published subsequently to the new-modelling of the London and Edinburgh pharmacopæias, there would have been little occasion for the present Synopsis. But these changes have made his *Materia Medica*, as well as *Lewis's*, less useful. It is true, that *Dr. Monro's* treatise comprizes the whole of the new pharmacopæia

pæia of the London college; but the Edinburgh college did not publish their new dispensatory till two or three years after his book was printed; consequently it contains none of their alterations and improvements. It appears, therefore, that there was sufficient room for a new treatise on the Materia Medica, on a compendious scale, drawn up conformably with the changes that have taken place in the British pharmacopæias, and giving an account of the latest additions and improvements that have been made in this branch of medical science. On such a plan is the present Synopsis; in the composition of which, although occasional use has been made of the

larger works already mentioned, as well as of many others on the same subject; yet let it not be supposed, that it is nothing but an abridgement of any, or all of them. The Author hopes that the great number of observations drawn from his own experience, together with the general execution of the plan, will raise his performance above the rank assigned to mere compilations.

In treating of each article, the following method has been pursued. Supposing it to be a vegetable, the Generic and Trivial names of *Linnaeus* are first given; then the Class and Order to which it belongs in the Sexual System; then the Natural

tural Order, as improved by *Murray* in his *Apparatus Medicaminum*; then the country of which it is a native*; then the *Officinal Name*, and the Part or Parts used in Medicine; then the *English Name*; then its *Action* upon the Human Body; the *Diseases* in which it is serviceable; the *Doses* and *Forms* in which it is prescribed; the *Auxiliaries* with which it is joined; the *Preparations* and *Compositions* directed to be made from it in the *London* and *Edinburgh pharmacopæias*, with the relative proportions of the other ingredients in

* This is all that is given relative to the Natural History of each article. After the completion of Dr. *Woodville's* useful work, entitled *Medical Botany*, more in this way would have been superfluous.

those

those compositions*; the Doses of such Preparations and Compositions; and, lastly, References to Authors of celebrity, who have written upon the subject under consideration.

From this sketch it will readily be seen, that this compendium is of a practical tendency; and hence it has been entitled, “A Practical Synopsis of the Materia Medica,” in contradistinction to other works on the same subject, which contain descriptions relative to Natural History, details relative

* This account is only intended to convey a general knowledge of the officinal compositions, to such as are not engaged in practical pharmacy. Those whose business it is to prepare such compositions, must refer to the pharmacopœias themselves.

to

to Chemistry, and theories relative to Physiology.

It is but justice to acknowledge, that Professor *Arneman*, of *Göttingen*, has furnished the Author with many hints in a work, written in the German tongue, upon the same plan, and with a similar title*. From this work he has made several extracts; yet the present treatise differs in many respects from that of the *Göttingen* Professor. In this performance, the *Materia Alimentaria* is more extensive; the subjects of the *Materia Medica* are, in several instances, treated of more at length, and with a more particular relation to the British pharmacopœias; and, lastly, the references to authorities are more numerous.

* *Praktische Arzneimittellehre 2Theile*, 8vo. 1795, second edition.

Amid the great multitude of substances which the *Materia Medica* presents, and more especially in the crowded catalogue of such as belong to the vegetable kingdom, the comparative worth of each must vary considerably. Although it may not be proper in a general treatise on the *Materia Medica*, to omit altogether the names of those which have little efficacy*; yet to discriminate them from others which possess greater powers, must be highly useful to young practitioners. Under this persuasion, the Author has marked with ¶ such substances as either

* It is rather extraordinary, that in such a large work as *Cullen's*, no notice whatever should be taken of the following (besides other) articles, viz. *Arsenicum*, *Hepar sulphuris*, *Rhododendron*, *Colchicum*, *Lichen islandicus*, *Geoffræa*, *Gratiola*, &c. If he had no experience or opinion of any of them, he should at least have mentioned what others had asserted of them, and after expressing his doubts, have left the reader to decide for himself.

in the trials of others, or in his own practice, have fallen short of their reputed virtues. In this attempt to estimate the comparative value of different medicines, he has profitted much from the observations of *Cullen*. In a few instances, however, he has differed from that venerable authority, giving a more favourable report of some substances, and a less favourable one of others than the learned Professor has done.

Concerning the *Materia Alimentaria*, it is proper to notice, that much of that is taken from *Plenck's* *Bromatologia*. Although the catalogue which is here given of alimentary substances, is by no means scanty; yet it is by no means so full as his. It is pleasing to reflect, that
among

among the numerous race of Quadrupeds and Birds, there is scarcely one that is unfit to serve as food for man. In like manner, the exceptions in this respect, among the Finny Tribe are, when compared with the aggregate number of this part of the creation, exceedingly few. It is chiefly in the order Branchiostegi, that instances of Fishes which cannot be eaten with safety, are met with. On the other hand, the proportion of noxious individuals in what in our language are called Shell-fish, is considerably greater.

In the Vegetable Kingdom, Providence has been still more bountiful. The seeds of all plants which belong to the natural orders, Gramina and Leguminosæ, and the fruits of such as belong to the
Amen-

Amentaceæ, Pomaceæ, and Palmæ, may not only be eaten with safety, but constitute the chief subsistence of the human race in different quarters of the globe. The most remarkable among the esculent vegetables, have been noticed in this treatise. An enumeration of them all would have made a volume of itself*.

Both in this part, as well as in the animal kingdom, *Gmelin's* edition of *Linnæus's* *Systema Naturæ* has been followed.

* At the time when he drew up the account of alimentary vegetables, the Author thought that as most of them are very generally known, in consequence of being cultivated in fields, orchards, and gardens, there was no occasion to mention, as he has done in treating of the medical plants, the classes, orders, and native places. But he now thinks differently, and wishes such notices had not been omitted.

If

If an apology is required for withholding his name, the Author refers to what he has said on that subject in the Preface to the *The-saurus Medicaminum*. It is not his intention that it should always be withheld. On a future occasion it will perhaps be made known. In the mean time, he begs leave to address to the reader, who may be solicitous about this point, the following sentence (with the substitution of the word writer for speaker) from *Seneca*: *Non te moveat scribentis autoritas, nec quis sed quid scribat, intendito.*

MAY 15, 1797.

A TABLE,

A TABLE,

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PART I.

PART I.

ALIMENTARY
SUBSTANCES.

CLASS I.

ALIMENTARY SUBSTANCES.

I. *From the Animal Kingdom.*

THE alimentary principles in animal and vegetable substances, are radically the same. They are resolvable into mucilage or jelly, oil or fat, and gluten*. These principles, however, are

* A late distinguished writer on the *Materia Medica*, has endeavoured to shew that the nutrimental parts of vegetables (and consequently of animals, the solids and fluids of which he allows to be originally formed from vegetables, because all animals either feed directly and entirely on vegetables, or upon other animals that do so) are an acid, sugar and oil. Yet how much acid, sugar and oil, is there in the highly nutritive farina of wheat? No acid is obtained from it but by means of fermentation, or some other process which destroys its alimentary property; and as for sugar and oil, the quantity in which they can be extracted from flour is so small, as to bear no proportion to its other component parts. When Dr. Cullen argued that the vegetable mucilage is nutritious by virtue of its saccharine matter, because by chemical treatment, sugar, or the acid of sugar, may be produced from it, he was not aware, that, by the same mode of reasoning, it might be assumed that it is not the saccharine principle, but fixed and inflammable air, that constitute the alimentary matter, because sugar is capable of affording those elastic fluids: Or with equal propriety, he might have maintained, that alkaline salt is one of the nutrimental principles,

more abundant and better elaborated in quadrupeds and other orders of the animal kingdom, than in plants ; hence, in equal quantities, animal is more nourishing than vegetable food.

Animal substances differ materially from vegetable substances in their property of alkalescency, or in their disposition to run into the putrefactive fermentation ; whereas the greater part of vegetables tend to acescency, or run into the vinous and acetous fermentation. To notice other chemical distinctions between the two kingdoms, would be foreign to our plan.

In general, animal food passes off less readily by perspiration, urine, and stool, than vegetable aliment. The former is more heating or stimulant than the latter. Among other general effects of an animal diet, it should be mentioned that it favours the production of plethora and obesity.

ciples, because an alkali, either fixed or volatile, is obtainable from all vegetable and animal substances. We know that all substances from the vegetable and animal kingdom, that are used for food contain, in greater or less proportions, oil, mucilage, and gluten ; but as mucilage and gluten yield other matters besides acid and sugar, the nutritive properties of animal and vegetable substances cannot, we think, be wholly referred to acid, sugar, and oil:

In

In the enumeration of the principal alimentary articles of the animal kingdom, we shall follow the Linnæan method.

A. MAMMALIA.

I. PRIMATES. O.

II. BRUTA. O.

Of the quadrupeds which belong to these two first orders, none are eaten by the inhabitants of civilized countries.

Among the edible animals which belong to the

III. FERÆ,

may be mentioned the

URSUS arctos. The black Bear; the flesh of which is used for food by the common people in Norway, Russia, and Poland. It has a strong, disagreeable smell, and is difficultly digested. It is generally salted and dried before it is dressed.

DIDELPHIS opossum. The Opossum. The flesh of this animal is eaten in many parts of America, and in some parts of Asia.

DIDELPHIS gigantea. The Kangaroo. Though the flesh of this animal is very coarse, yet it is

eaten in New Holland, where better animal food is scarce.

Several other species of the opossum tribe are used for food in South America, where their flesh is reckoned equally good with that of the rabbit or hare.

CAVIA *Paca*. The spotted Cavy.

—— *Aguti*. The long-nosed Cavy.

—— *Aperea*. The rock Cavy.

—— *Cobaya*. The Guinea Pig, or restless Cavy.

The flesh of these and other species of cavia, is much esteemed in Guaiana, Brazil, and other parts of South America. The flesh of some of them is white, and resembles that of the rabbit.

ARCTOMYS *Marmota*. The Alpine Marmot. Notwithstanding its strong, disagreeable smell, the flesh of this animal is eaten by the poorer inhabitants of Tyrol, Savoy, and other parts of the Alps. Other edible species of this genus are, the

ARCTOMYS *Monax*. The Maryland Marmot.

———— *Bobac*. The Bobak.

———— *Citellus*. The Casan, or earless Marmot.

SCIURUS *vulgaris*. The common Squirrel. The flesh of this animal, which subsists chiefly upon nuts,

nuts, acorns, and the seeds contained in the cones of fir-trees, is white, sweetish, and readily enough digested. In its flavour it resembles the flesh of a barn-door fowl, and is much eaten in Norway and Sweden. Several of the foreign species of *sciurus*, are in like manner edible.

IV. GLIRES.

LEPUS timidus. The Hare. The flesh of the leveret is more nutritive, and more easily digested than that of a full grown hare, which is dry and heavy. It is asserted by a celebrated writer on the *materia medica*, that a hunted hare is more difficultly digested than one that is suddenly killed; but daily experience contradicts this.

LEPUS cuniculus. The Rabbit. The flesh of the rabbit is softer and more digestible than that of the hare; but it is not so nutritive. Wild rabbits are not only a more palatable, but a more wholesome food than tame ones.

V. PECORA.

CERVUS Alces. The Elk. In Norway, Lapland, and Sweden, the flesh of the young elk is much esteemed, and is found to be sufficiently digestible. The flesh of the full-grown animal af-

fords a food which lies long upon the stomach, but is very nourishing. It is often salted and dried.

CERVUS Elaphus. The Stag. The flesh of the cervus elaphus varies according to the age and sex of the individual. In the *fawn* state, the flesh is tender and nourishing; but by no means so favourable as that of the full-grown animal, known by the name of *Venison* (*Ferina*). It is a very nutritive, digestible, and wholesome food. It should be more than four years old. The season for killing it is the month of August; it is then the fattest and best flavoured. In September and October the rutting season takes place; during which the stags become lean, and their flesh acquires a rank smell and disagreeable taste. The females of this species are called *Hinds*. Their flesh is reckoned inferior to that of the males. A nutritive, demulcent *jelly* (*gelatina cornu cervi*) is prepared by boiling the horns of this animal, rasped or shaven, in a proper quantity of water. A medicinal decoction is prepared from the burnt horns, as will hereafter be noticed.

CERVUS Tarandus. The Rein Deer. This animal, so valuable to the inhabitants of Norway and Lapland, affords a tender, favourable, and wholesome food, not unlike to stag-venison. Rein-deer are generally

rally killed when they are about eight or nine years old, after they have been employed in drawing the sledge, or in other labour, for four or five years. Their tongues are esteemed a great delicacy; they are dried and sent into other countries in considerable numbers. The females are milked like cows. Their *milk* is sweet and nourishing, and cheese is sometimes prepared from it.

CERVUS *Dama*. The Fallow Deer. The flesh of this species, so common in parks all over England, is similar to that of the Stag. As, however, it is generally better fattened and less exercised, *Buck venison* is esteemed the finest. Both this and *Doe venison*, are a light and wholesome food.

CERVUS *Capreolus*. The Roebuck. The flesh of this species is tender and readily digested; but, upon the whole, not equal to that of the fallow-deer.

ANTILOPE *Rupicapra*. The Chamois. Its flesh is tough and coarse; but is nevertheless gladly eaten by the poorer part of the inhabitants of the Alps. The flesh of some of the other species of Antelope is lighter and finer flavoured.

CAPRA Hircus. The common domestic Goat. The flesh of this species, especially of the male (*caro hircina*) is exceedingly strong, hard, and difficultly digested. The flesh of the female (*caro caprina*) is not so tough and disgusting ; but is nevertheless a very coarse and heavy meat. Yet in the mountainous parts of Scotland, Ireland, and Wales, the flesh of the full-grown animal, salted and dried, is a common winter food ; and the flesh of the *Kid* (*caro hœdina*) is reckoned a great delicacy. *Goat's milk* (*lac caprinum*) resembles cow's milk in the abundance of oily and coagulable matter which it contains (*Parmentier et Deyeux Annales de Chemie t. 6. 192, 193*). It is prescribed by many practitioners with great advantage in consumptive cases. The goat browses upon a great variety of mountainous plants, many of which possess medicinal virtues, with which the milk becomes in some degree impregnated. As it contains but a small proportion of whey, it should be diluted with water when it is used medicinally. Where asses milk has proved purgative, goat's milk has been used in its stead with good effect. *Butter* and *cheese* made from the milk of this animal, are not much inferior to those prepared from cows milk. The cheese, however, is liable to become rancid by keeping.

Capra

CAPRA *Ibex*. The Wild Goat. The flesh of this species is hard and coarse. It is, however, eaten by the peasants of the Alps.

Ovis *Aries*. The common Sheep. Mutton (caro ovilla) is well known to be a highly nutritious and wholesome meat. It is perhaps more universally used than any other animal food. *Tup-mutton* (caro arietis) has such a strong smell and disagreeable taste, and is besides so exceedingly tough and difficultly digested, that it is never eaten but by those who cannot afford to purchase mutton of a better quality. *Ewe-mutton* (caro ovis femellæ) if it be more than between two or three years old, is likewise tough and coarse. *Wedder-mutton* (caro vervecina) or the flesh of the castrated animal, is most esteemed, and is by far the sweetest and most digestible. *Lamb* (caro agnina) being less heating and less dense, is better suited to weak stomachs; but this applies only to the flesh of lambs that have not been robbed of their blood by repeated bleedings, or reared by the hand with milk adulterated with chalk, in order to make the meat appear white. Such practices to render the food pleasing to the eye, at the expence of its alimentary properties, cannot be too much reprobated. *Sheep's milk* (lac ovillum) is thick and heavy; it abounds in cream, and contains but a small proportion of whey

whey (It contains less whey than any of the other kinds of milk *Parmentier*) and is scarcely ever used either in the way of diet or medicine. *Mutton-broth* (*jus vervecinum*) is often taken, but not very properly, by delicate and weak persons. It is strong, and does not sit very well upon the stomach. *Broth made of Sheep's trotters* (*decoctum pedum vervecinorum*) is administered clyster-wise in abrasions and ulcerations of the intestinal canal, and in other cases in which nourishment cannot be given by the mouth.

Bos Taurus. The common Bull and Cow. The flesh of the bull has a strong, disagreeable smell, and is tough, dry, and difficultly soluble in the stomach. *Bull-beef* (*caro taurina*) is rarely eaten. But the flesh of the ox, or castrated animal, called *Ox-beef* (*caro bubula vel bovina*) is a highly nourishing and wholesome food, readily digested by healthy persons, and constituting a principal part of the common diet of the inhabitants of this and many other countries. It is the most strengthening of all kinds of animal food. *Cow-beef* (*caro vaccina*) is not so tender, nor so nourishing, nor so digestible as ox-beef. *Veal* (*caro vitulina*) is tender and nourishing; but not so easily digested, nor so well suited to weak stomachs, as is commonly imagined. It is a matter of just complaint, that the same injurious methods

methods are practised in the management and rearing of calves, as have been already noticed under the article Lamb. By such treatment the quality of the flesh is much depraved. What is called *Beef-tea* (infusum carnis bubulæ) is prepared by putting a pound of the lean part of beef, cut into very thin slices, into a quart of water, and boiling it over a quick fire about five minutes, taking off the scum. The liquor is afterwards poured off clear for use. This makes a light and pleasant article of diet for weak and delicate people. On some occasions spices may be advantageously added to it. *Gravy soup* (jus carnis bubulæ concentratum) is very nourishing; but is heavy and heating, and therefore only suited to strong stomachs. *Veal broth* (jus vitulinum) is nourishing without being heating. It is used clyster-wise, as well as taken into the stomach. *Calves-feet jelly* (gelatina ex pedibus vitulinis) i. e. the inspissated decoction of the feet, is highly nutritious and demulcent.

It belongs to this place to take notice of that useful animal secretion, milk. *Cows-milk* (lac vaccinum) like the milk of most* other animals, is resolvable into three parts, very different in their properties from each other, viz. the oily part, which yields

* Of most other animals; for woman's milk contains scarcely any coagulable or cheesy matter.

cream and butter ; the coagulable part, which gives curds and cheese ; and the watery saccharine part, which constitutes whey. The two first parts are very abundant in cows, goats, and sheep's milk ; but are present in much smaller proportion in asses and mare's milk ; and in woman's milk the coagulable part is almost entirely wanting. *Parmentier et Deyeux Annales de Chimie*, t. 6, p. 195. It is owing to the greater or less proportion of the butyraceous and caseous particles, that the milk of different animals is heavier or lighter ; in other words, more or less digestible.

Milk holds a middle place between animal and vegetable food. It is less elaborated or assimilated than the other animal juices. It does not, like them, run into the putrefactive fermentation, but becomes acedcent.

Milk is the proper and natural food of the young of all the animals of the mammalia class ; and cows-milk makes a principal part of the daily diet of a great proportion of the human race, both in the infant and adult state. On account of the abundance of oily and cheesy matter which it contains, *Cow's milk* is to infants by no means so well suited as human milk ; but as the mode of living in civilized society often depraves the quality of woman's milk, or prevents

prevents its secretion, cows-milk in too many instances becomes a necessary substitute. On such occasions, as it is too heavy to be given alone, it should be diluted with water; and as it is disposed to become more acedcent than human milk, and from that cause to produce gripings and other disorders of the bowels, in young children, it will often be useful to mix with it decoctions of animal substances, such as chicken or veal broth, or decoction of hartshorn-shavings; of which last two ounces should be boiled in a quart of water, over a gentle fire, till the whole is reduced to a pint; when, after it is become cold, it will be of the consistence of a light jelly. This, mixed with about twice its quantity of cow's milk, with the addition of a little sugar, forms for young subjects a proper aliment, approaching nearly to the nature of human milk.

Milk is used medicinally (1) in *consumptions*, especially in their early stage; (2) in *gouty affections*, after the paroxysm is gone off; (3) in *small-pox*, diluted with water, as the common drink (4) in *measles*, especially the malignant kind, diluted in the same manner (5) in *gonorrhœa*, *lues venerea*, and during a *mercurial salivation* (6) in *cancerous affections* (7) in cases where *mineral and animal poisons* have been swallowed (8) in cases of *strangury* and *dysury* from the absorption of *cantharides*, &c.

(9)

(9) in *fluor albus* (10) in many *spasmodic* and *ner-
vous disorders*.

When milk is used medicinally, it is often serviceable to dilute it with Pyrmont, Seltzer, or some other proper mineral water; and to prevent acidity, and make it sit better on the stomach, lime water, and some of the distilled aromatic waters, are occasionally mixed with it. To obviate costiveness, which milk is apt to induce, it is often proper to mix brown sugar, or magnesia with it, to boil it with oatmeal, veal broth, &c.

In general, milk is improper in inflammatory fevers, unattended with pustulous eruptions; in bilious fevers; in scrophulous cases; and in rickets.

The following are the principal products and preparations of milk in dietetic and medicinal use: *Cream* (Flos vel Cremor lactis) and *Butter* (Butyrum). Their nutritive quality is well known; nor can it be necessary to notice how much they disorder the stomach and bowels, when taken too freely.

Curds (coagulum lactis) taken in considerable quantity, are highly oppressive to the stomach, and
not

not unfrequently prove the cause of obstructions and inflammations of the bowels.

Cheese (caseus). The quality of this varies according to the kind of milk from which it is prepared, according to the quantity of oil and whey which the coagulable matter retains (in other words, according to the different modes of separating and pressing the curds) and lastly, according to its age. In general, it is an aliment only suited to strong stomachs, and to such persons as use great and constant exercise. In the higher orders of society, it is used chiefly as a condiment.

Toasted cheese is not (Cullen Mat. Med. V. 1, p. 351) easily digested by weak stomachs; and for those who can be hurt by indigestion, or heated by a heavy supper, it is a very improper diet.

The countries most celebrated for cheese, are England, Holland, Switzerland, and Italy. The best English cheeses are the Cheshire, Gloucester, and Stilton; the Italian cheese in most esteem, is the Parmesan. Besides the *Gruyeres* cheese, which is made in the canton of Friburg, the *green* Swiss cheese (called *Schabziger*) which is made in the canton of Glaris, is much sought after. The last-mentioned cheese owes its flavour and colour to the herb

herb melilot (*Trifolium melilotus officinalis* Linn.) which, after being dried, pounded, and sifted, is mixed with the curds from which the whey is previously expressed. This cheese is brought to table in a powdery state, and is generally mixed with butter before it is eaten. It is reckoned stomachic.

Butter milk (lac ebutyratum) is milk which has been deprived of its oily matter by churning or agitation. It is nourishing, cooling, and diluent. It is used in cachexies, atrophies, consumptions, &c.

Whey (serum lactis). Is the watery, saccharine part of milk, freed in a great measure from the butyraceous and caseous matter. It is lightly nutritive, diluent, aperient, and diuretic. It is given in consumptions, dysenteries, jaundice, &c. alone, or mixed with mineral waters, and sometimes impregnated with the juices of medicinal herbs. *Wine-whey* (serum lactis vinosum) *tamarind-whey* (serum lactis tamarindatum) *tartar whey* (serum lactis tartarifatum) *mustard-whey* (serum lactis sinapinum) &c. will be particularly noticed in their proper places.

Sugar of Milk (Saccharum lactis). Is a saline substance, obtained from the whey by evaporation. It has been properly enough called the essential salt
of

of milk (*Parmentier et Deyeux Annales de Chemie*, t. 6, 196). It has been much extolled by some late writers as a remedy in consumptions (*Willyamoz de sale lactis essentiali Leyden*, 1756) but, as it is contained in whey, it is evident that that preparation must possess all its virtues, and therefore that the trouble of obtaining it separate must be unnecessary.

Bos Americanus. The American Bison. The American Bull.

— *Moschatus*. The Musk Bull.

— *Bubalus*. The Buffalo.

— *Caffer*. The Cape Ox.

The flesh of all these species of the ox-kind, are eatable; but much inferior to that of the domestic ox. The flesh of the *Bos moschatus* has a strong flavour of musk; and the flesh of the *Bos caffer* is said to taste like venison.

VI. BELLUÆ.

Equus Caballus. The Horse. *Equa*. The Mare. *Mares-milk* (lac equinum) very much resembles the milk of asses. Like the latter, it contains a large proportion of serum, with a small proportion of butyraceous and caseous matter. Hence, where asses-milk is not to be had, it may be advantageously

C

tageously used in its stead. It is from mares-milk that the Tartars prepare their favourite beverage, called *Koumifs*, which is a vinous liquor, the ardent spirit of which is derived from the sugar of milk (which is very abundant in the serous part of mares-milk) by means of fermentation. Late experiments have shown, that a similar spirituous liquor may be obtained from the milk of other animals (*Oferetzkowsky* de spiritu ardente ex lacte bubulo, &c. Strasburg, 1778). An account of this spirituous product of milk, was published several years ago by Spielman (*Memoires de la Soc. de Medec. à Paris, Ann.* 1776) and latterly its medicinal uses have been made known by Dr. Grieve (Transactions of the Royal Society of Edinburgh, V. 1, p. 185) who has related several cases in which it acted as a restorative and strengthener. In one case of incipient phthisis, it proved highly beneficial. Upon the whole, however, it is doubtful whether as an alimentary or medicinal article, it be much, if at all, superior to butter-milk and whey.

Equus Asinus. The As. *Asina.* The She As. The proportion of whey is very great, and of oil and cheesy matter very small; in *asses-milk* (lac asininum). Hence it is light, and well suited to weak stomachs. It is a well known remedy (1) in *consumptions*; and by virtue of its diluent, aperient, and

and diuretic operation, it frequently proves serviceable in (2) *arthritic* (3) *rheumatic* and (4) *icteric* cases (5) in *weaknesses of the intestinal canal* (6) in *disorders of the urinary passages* (7) in *fluor albus*; and in general in all those cases in which cows-milk is recommended (*Hoffmann de mirabili lactis asinini usu in medendo*). Asses-milk is generally taken early in the morning, upon an empty stomach, in the quantity of half a pint; but where much reliance is placed upon it, it ought to be given, in somewhat smaller doses, two or three times in the day. In many cases, Seltzer and Pyrmont waters are advantageously mixed with it. It is evident that the best seasons for drinking asses-milk, are spring and summer, as at those times there is the greatest variety of green food for the asses. The milk of asses foddered with hay or other dry food, is neither so light nor so salutary.

TAPIR Americanus. The Tapir. The flesh of this animal, which is about the size of a small cow, is much liked by the inhabitants of South America, in many parts of which tapirs are met with in great numbers; but it is much inferior to our beef.

Sus Scrofa.

(a) *Ferus* (Aper). The Wild Boar. The flesh of the wild boar (*caro aprina*) is dense, but

sufficiently tender, very nourishing, and more favourable than that of the domestic hog. But as the general properties of both are the same, they will be noticed under the article Pork. The flesh of the wild boar is in season in October. The head is esteemed the finest part. The flesh of the young animal is reckoned a great delicacy.

(b) *Domesticus* (vulgaris). The common, or domestic Boar (Verres). The Sow (Scrofa). The flesh of the boar and of the sow that has often farrowed, is strong, lean, and coarse, and makes bad bacon. It is the flesh of the castrated animal that is in common use, and that is known by the name of *Pork* (caro porcina). On account of the fat or lard with which it abounds, it is not very easily digested. It is a very savoury food, and affords a strong nourishment, suited to persons who lead an active or laborious life. The too frequent and long continued use of this meat favours obesity, produces foulness of the stomach and bowels, and occasions disorders of the skin. The flesh of the *Sucking-pig* (caro porcelli lactentis) is reckoned a great delicacy; it is very nourishing; but by reason of the thick and slimy juice with which it abounds, it is not very readily dissolved in the stomach, and is therefore by no means a proper food for weak and sickly persons. *Bacon* (caro suilla:

vel.

vel porcina salita et infumata) is a coarse and heavy, but nutritive food, only fit to be taken in considerable quantity by robust and labouring people. When it constitutes a principal part of the daily diet, it brings on disorders similar to those which arise from the immoderate use of pork. In consequence of the fat or lard with which it abounds, the flesh of the swine-tribe is more or less laxative. Upon the whole, it may be said of pork, that the occasional and sparing use of it is sufficiently salutary ; but that it cannot be made a principal part of the daily diet, without producing disorder in many constitutions, and particularly in those who are of a melancholic temperament, and lead a sedentary life.

The flesh of all the different species of this genus is edible. The flesh of the

Sus Tajassu. The Peccary, or Mexican Hog, becomes tainted with a strong musky taste and smell, unless the odoriferous gland upon the back is cut off immediately after the animal is killed. The flesh of the

Sus Babyrussa. The Indian Hog, is much esteemed in Java, Buero, and other islands in the Indian ocean.

B. AVES.

I. ACCIPITRES. O.

II. PICÆ.

CORVUS frugilegus. The Rook. Young rooks, stripped of their skin, are dressed in the same manner as young pigeons, from which they are not very different in flavour and degree of digestibility.

PICUS viridis. The Green Woodpecker. The flesh of this and several other species of this genus, is sufficiently palatable, though it is not very quickly dissolved in the stomach. In this country, where there is such a great variety of birds that afford a better aliment, the woodpecker is seldom eaten.

III. ANSERES.

ANAS. All the species of this genus are edible ; but those only will be noticed here that are most in use. Such are the

ANAS Cygnus. The wild Swan. *A. Olor*. The tame Swan. The flesh of the young swan or cygnet, is similar in flavour and other qualities to that of the goose. Formerly it was reckoned a great delicacy.

ANAS

ANAS Anser. The Goose (wild and tame). The flesh of this bird is very savoury, but is a strong, heavy, and heating food. The young bird is esteemed a delicacy. The wild goose is stronger and less digestible than the tame one. Both are an improper food for weak and delicate people.

ANAS Bernicla. The Bernacle, or Brent Goose. The flesh of this species, which has a fishy taste, is much relished by many people. It is not very easily digested.

ANAS Moschata. The Muscovy Duck. When tamed and properly fed, much the same in flavour and digestibility as the common duck.

ANAS Penelope. The Wigeon.

—— *ferina.* The Pochard.

—— *Crecca.* The Teal. The flesh of the three last species resembles in taste and other qualities that of the

ANAS Boschas. The Wild Duck ; which is a well known delicacy, more savoury, but heavier and more heating than the

ANAS domestica. Common tame Duck. The young of both species (Cullen Mat. Med. Vol. I.

p. 380) being of a more viscid texture, are more slowly digested than the adult birds.

ALCA arctica. The Puffin. The flesh of this bird, which abounds with fat or grease, has a very fishy taste, and is not very readily dissolved in the stomach. When potted with spices, it is much relished by many persons; but it should be eaten sparingly, as it is far from being a wholesome food.

ALCA Torda. The Razor-bill.

—— *cirrhatà.* The Tufted Auk. The flesh of these is scarcely edible; but their eggs afford a very nourishing and wholesome food.

PELECANUS Bassanus. The Solan Goose, or Gannet. This has a rancid, fishy taste; but is nevertheless much relished in Scotland. It remains long upon the stomach; and by reason of its oily quality, is very heating.

LARUS marinus. The Black-backed Gull. The young of this and several other species of larus, are edible; but their flesh has a strong and fishy taste.

IV. GRALLÆ.

The flesh of most of the genera of this order is edible, and highly savoury. Among the foreign genera, the *PHÆNICOPTERUS ruber*, the *FLAMINGO* and *TANTALUS Loculator, ruber*, &c. Wood Ibis, Scarlet Ibis, &c. are esteemed great delicacies.

SCOLOPAX. The flesh of most of the species of this genus, is exceedingly savoury and delicious, and is wherewithal sufficiently light and digestible. This is particularly applicable to the following well known species:

SCOLOPAX rusticola. The Woodcock.

———— *Gallinago*. The Snipe.

———— *Gallinula*. The Gid, or Jack Snipe.

———— *Glottis*. The Great Plover, or Green Shank.

———— *Totanus*. The Spotted Snipe.

———— *Limosa*. The Stone Plover, or Lesser Godwit.

———— *lapponica*. The Red Godwit.

Somewhat similar to the preceding in flavour (but not so highly palatable) and in other qualities, are the

TRINGA

TRINGA *pugnax*. The Ruff and Reeve.

———— *Vanellus*. The Lapwing, or Bastard Plover.

———— *Cinclus*. The Purre.

———— *Squatarola*. The Grey Plover, or Grey Sandpiper.

Also the

CHARADRIUS *Morinellus*. The Dotterel.

———— *Pluvialis*. The Green, or Golden Plover.

———— *Ædicnemus*. The thick kneed Bustard, or Stone Curlew.

———— *Himantopus*. The long legged Plover.

Many species of the following genus afford a fine-flavoured food, not very different in its qualities from that of the anserine tribe.

FULICA *fusca*. The Brown Gallinule.

———— *chloropus*. The common Water Hen, or Moor Hen.

———— *Porphyrio*. The Purple Water Hen, or Purple Gallinule.

Several species of the Rallus, or Water Rail, are in like manner a well tasted and sufficiently digestible food.

V. GALLINÆ.

PAVO cristatus. The Peacock. The young peahen is much the same in taste and other qualities with the pheasant, to which, however, it is inferior.

MELEAGRIS Gallopavo. The Turkey. The white meat upon the breast of this bird is justly reckoned a great delicacy. It is very light and nutritious, without being heating, and is therefore an excellent food for weak people.

Similar in flavour and other qualities to the preceding, is the flesh of the

PENELOPE cristata. The Guiana Quail.

CRAX Aleutor. The crested Curassow.

PHASIANUS Gallus (domesticus) Gallus et Gallina.

The Dunghill Cock and Hen.

The flesh of this useful domestic bird affords a well known delicate and wholesome food. The young bird, or *Chicken* (pullus gallinaceus) and the *Capon* (gallus castratus) are most esteemed. Both are very nutritive and easily digested. *Chicken Broth* (jus gallinaceum) is diluent and restorative, and is a very useful drink in cholera, diarrhæa, and other disorders of the stomach and bowels.

The

The concentrated decoction yields an excellent gelly.

It belongs to this place to take notice of the alimentary properties of *Eggs* (ova).

The fluid contents of an egg consist of the *White* (albumen) and the *Yolk* (vitellus). The former very much resembles the lymph of the blood, or the coagulable part of milk. The latter, viz. the yolk, is an animal mucilage, composed of oil, coagulable lymph and water. It is miscible with cold water, so as to form an emulsion. The *oil* (oleum ovorum) is separable from the yolk, boiled till it becomes hard, by means of pressure.

The eggs of all granivorous birds, and especially of the domestic fowl, yield a mild demulcent and strengthening aliment, well suited to consumptive persons, and such as are exhausted by immoderate evacuations. Raw eggs are gently laxative, and are found to be serviceable in cases of jaundice and obstructed liver (*White* on the Management of Pregnant and Lying-in Women, p. 74). A nutritive, restorative drink, is prepared by rubbing the yolks of two or three eggs, and a little white sugar, with a pint or two of cold water, adding to it afterwards a glass of Rhenish or any other

other light wine, and a little lemon juice, to give it a flavour. This *Egg-emulsion* (emulsio ovi vel lac pulli) without the wine, is a good remedy in coughs, hoarsenesses, spitting of blood, costiveness, &c.

Both the white and yolk of egg are very indigestible when boiled to hardness. Eggs should be subjected to as little of the art of cookery as possible. The lightest as well as the simplest mode of preparing them for the table, is to boil them only as long as is necessary to coagulate slightly the greater part of the white, without depriving the yolk of its fluidity. This is what is called poaching them; and in this way they sit well upon most stomachs.

PHASIANUS colchicus. The common Pheasant. A well known delicacy. Its flesh is tender, nutritious, and readily soluble in the stomach.

NUMIDA Meleagris. The Guinea Hen. In flavour and digestibility much like the pheasant, but inferior.

TETRAO Urogallus. The Wood Grouse.

——— *Tetrix.* The Black Cock, Black Game, or Black Grouse.

TETRAO

TETRAO *Lagopus*. The Red Grouse, or Red Game.

The flesh of these species of Tétrao, and especially of the two last, is savoury and sufficiently digestible ; but it is neither so tender nor so finely flavoured as that of the

TETRAO *Perdix*. The common Partridge, which, of all game except the pheasant, is the lightest, the least heating, the most nutritious, and the most digestible.

Inferior in flavour and other qualities to the preceding species, is the

TETRAO *Coturnix*. The Quail. This bird is fond of hellebore-seeds, and the seeds of the lolium temulentum. Hence it is proper to have the stomach and intestines thoroughly drawn out of it before it is dressed, otherwise the juices of those noxious seeds might occasion sickness, vomiting, convulsions, and other distressing symptoms, to those who eat thereof.

VI. PASSERES.

COLUMBA *domestica*. The common Pigeon.

————— *Palumbus*. The Ring Dove.

The

The flesh of these and other species of columba, is savoury, but heating. The young are more digestible than the adult birds. Both are an improper food for invalids.

ALAUDA. The Lark. All the different species of this genus furnish a delicate and light food.

TURDUS *viscivorus*. The Mistle Thrush.

———— *pilaris*. The Fieldfare.

———— *Merula*. The Black Bird.

The flesh of these and other species of turdus, is tender, savoury, and sufficiently digestible. In hard winters, when these birds are compelled to feed upon holly-berries, the berries of the spindle tree (*evonymus europæus*) ivy-berries, &c. their flesh becomes bitter, and acquires a purgative property.

LOXIA *Curvirostra*. The Sheldapple, or Crossbill.

———— *Coccothraustes*. The Grosbeak, or Hawfinch.

———— *Chloris*. The Greenfinch.

The flesh of these and other species of this genus, is sufficiently palatable and digestible.

EMBERIZA

EMBERIZA *nivalis*. The Snow Bunting.

———— *Miliaria*. The Bunting. These birds are well flavoured. The

EMBERIZA *Hortulana*, or Ortolan, is a well known delicacy. This bird is sometimes little more than a ball of fat, highly luscious, but cloying, and if eaten freely, heating and oppressive to the stomach. The

EMBERIZA *Citrinella*; or Yellow Hammer; and
 ————— *oryzivora*; or Rice Bunting, are also palatable birds, especially the latter, which, when fat by feeding upon rice or maize, is highly esteemed in the West Indies and some parts of North America.

FRINGILLA *cælebs*. The Chaffinch.

———— *Montifringilla*. The Brambling, or Bramble Finch.

———— *domestica*. The House Sparrow.

———— *montana*. The Tree Sparrow.

The flesh of these and other species of the finch-tribe, is neither very palatable nor very tender. Some of them have a bitter taste.

MOTACILLA *modularis*. The Hedge Sparrow.

———— *Ficedula*. The Beccafico, or Epicurean Warbler.

MOTACILLA

MOTACILLA	<i>Cenanthe</i> .	The Wheat Ear.
—————	<i>Rubetra</i> .	The Whin Chat.
—————	<i>Rubicola</i> .	The Stone Chatter.
—————	<i>Phænicurus</i> .	The Redstart.
—————	<i>Eritacus</i> .	The Redtail.

These and other species of motacilla, afford a sufficiently digestible, but not very savoury food.

HIRUNDO *esculenta*. The esculent Swallow. The nest which this species of swallow constructs in the hollows of rocks, of mollusca (sea-worms) and other gelatinous marine substances, bears some affinity to isinglas, and is esteemed a great delicacy by the Chinese, Cochinchinese, and inhabitants of various islands in the Indian ocean. They dissolve it in their broths and soups.

C. AMPHIBIA.

TESTUDO *Mydas*. The Green Turtle.

Turtle, eaten moderately, is very nutritious, and not very difficultly digested. The eggs are much esteemed. The soup which is commonly prepared from it, is very heavy and heating; but a light decoction of it, or broth (*jus testudinis*) is

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demulcent

demulcent and restorative, and has been found to be beneficial in phthical and hectic cases.

TESTUDO ferox. The flesh of this species is said to be more delicate than that of the preceding. In other respects its properties are the same.

TESTUDO græca. The Land Turtle, or Land Tortoise.

The flesh of this is little inferior to the sea or green turtle; it is much used in Italy and the Levant for making soups and broths. The eggs are nearly as good as hen's eggs, and make excellent omelettes.

RANA esculenta. The edible Frog, or Green Water Frog. The white flesh upon the thighs of this species of frog, is much eaten in France, Italy, and some parts of Germany. It tastes somewhat like the flesh of a chicken; but affords very little nutriment. Frog's broth is prescribed by the French and Italian physicians in consumptive cases; in which, however, it seems to have no advantages over chicken broth.

LACERTA agilis. The common Green Lizard. Much cried up of late years for its dietetical uses

in lepra, scrophula, cancer, and lues venerea (*Florés spécifique nouvellement decouvert, &c. Lausanne, 1785*). But from the trials made of it by Carminati and others, it appears to have little or no title to medicinal efficacy in those cases.

LACERTA *Stincus*. Eaten by the Ægyptians as a restorative and aphrodisiac.

COLUBER *Vipera*. The Viper.

———— *Berus*. The Adder. The broth prepared from the flesh of these species of viper (*jus viperinum*) was formerly in high esteem as a restorative (*Juncker de Viperarum usu med. 1744, Oettinger de curis viperinis, 1768*) and is at this time much used by the Italians. But it appears to have little, if any, advantage over most other animal decoctions.

D. PISCES.

I. APODES.

MURÆNA *Anguilla*. The common Eel. A very rich and luscious fish ; but on account of the oil with which it abounds, digested with difficulty. When eaten too freely, it occasions nausea, vomiting, diarrhæa, and not unfrequently some degree of

D 2

fever.

fever. It is at all times an improper food for sick persons, for those who are of a bilious constitution, and for such as are troubled with flatulence and indigestion. Vinegar and horseradish form a proper seasoning to make it sit lightly on the stomach. Similar in its properties to the preceding, but (when of a large size) coarser and less digestible (whether fresh or dried) is the

MURÆNA *Conger*. The Conger Eel.

AMMODYTES *Tobianus*. The Sand Launce, or Sand Eel. In the Isle of Wight, it is called the Sand Sprat, and is in much esteem (*Worsley's History of the Isle of Wight*, p. 4). It should be eaten sparingly, being not very readily dissolved in the stomach.

Most of the other genera of the order Apodes, are edible; but, except the STROMATEUS, afford a coarse and heavy food, rejected where daintier fish can be had.

II. JUGULARES.

CALLIONYMUS *Lyra*. The Gemmeous Dragonet.

————— *Dracunculus*. The fordid Dragonet.

These

These species of callionymus afford a white and palatable meat.

TRACHINUS *Draco*. The Weaver. Affords a fine flavoured meat, firm, but tender. The Italians reckon it a great delicacy; and M. Duhamel calls it *l'honneur des bonnes tables*.

GADUS *Æglefinus*. The Haddock. Meat dense, well tasted, and sufficiently digestible. Dried haddock, like all other dried fish, is neither very digestible nor very nutritive.

GADUS *Callarias*. The Torsk. Affords a white, palatable, and digestible meat.

GADUS *Morrhua*. The Codfish. Fresh cod is a palatable, digestible, and wholesome meat. The glutinous parts about the head and the sounds, are most esteemed; but they are not so readily dissolved in the stomach as the other parts. By drying and salting, it loses much of its nutritive properties, and becomes less digestible.

The following other species of this genus, afford, when fresh, a sufficiently wholesome and nourishing food, viz.

GADUS *barbatus*. The Pout.

———— *Merlangus*. The Whiting.

———— *Pollachius*. The Pollack.

———— *Molva*. The Ling.

———— *Lota*. The Burbot.

III. THORACICI.

ZEUS *Faber*. The Dory. Savoury and sufficiently digestible.

PLEURONECTES *Hippoglossus*. The Holibut. The part that adheres to the side-fins, is esteemed a delicacy; but as it abounds in oil, it is not very readily dissolved in the stomach. The other parts of this fish are coarse and unpalatable.

PLEURONECTES *Plateffa*. The Plaife.

———— *Flesus*. The Flounder.

———— *Limanda*. The Dab.

———— *Solea*. The Sole.

———— *maximus*. The Turbot.

All these species of pleuronectes, and especially the last of them, are a savoury, nutritious, light, and wholesome food.

CHÆTODON *rostratus*. The Jaculator,

CHÆTODON

CHÆTODON *Imperator*. The Emperor of Japan ; and other species of this genus, are savoury and delicate.

SPARUS *Mæna*, and other species of sparus, are palatable ; but sometimes prove purgative, and disorder the stomach and bowels.

PERCA *fluviatilis*. The Perch. Firm, palatable, and readily digestible. These properties belong more or less to most of the other species of this genus.

SCOMBER *Scomber*. The Mackrell. Savoury, but soft, and not very readily dissolved in the stomach. It is not a wholesome fish.

MULLUS *barbatus*. The Red Surmullet.

——— *Surmuletus*. The Striped Surmullet. Finely flavoured, and almost as much esteemed in these days as they were in the times of ancient Rome. The head is reckoned the finest part. It is sufficiently digestible.

TRIGLA *Lyra*. The Piper. Well flavoured, but somewhat hard, and not very digestible. The other species of this genus are for the most part coarse and heavy.

IV. ABDOMINALES.

COBITIS *Barbatula*. The Loach, or Groundling. Palatable and sufficiently light fry.

SALMO *Salar*. The Salmon. A well known delicacy; it is very nutritious; and though it abounds in oil, it is, in moderate quantities, sufficiently digestible. The *pickled* fish is a very unwholesome food.

SALMO *Trutta*. The Sea Trout, or Bull Trout. Much inferior to, and less digestible than the preceding species.

SALMO *Fario*. The Trout. By far the best of all fresh water fishes. It is tender, exquisitely flavoured, and readily digested.

SALMO *alpinus*. The Charr. Similar in its properties to the last.

SALMO *Salvelinus*.

SALMO *Salmarinus*. The Salmon Trout.

— *Umbla*. These species are similar, but inferior, in flavour and other qualities to the salmon.

SALMO

SALMO Eperlanus. The Smelt. Palatable, but not very nutritive.

SALMO Albula. The Whiting. Neither very palatable, nor very wholesome.

SALMO Thymallus. The Grayling. The meat of this fish is white, firm, and delicate. It is sufficiently digestible and wholesome.

Esox Lucius. The Pike. Firm, palatable, and sufficiently digestible, provided it be not too large and too old. It is a wholesome fish.

MUGIL Cephalus. The Mullet. Much relished by many people, though it lies heavy upon the stomach, and is not a very wholesome fish. It is from the roe of the female mullet that the Italians prepare their favourite food *bòtargo*.

CLUPEA Harengus. The Herring.

——— *Sprattus.* The Sprat.

——— *Alosa.* The Shad.

——— *Encrasicolus.* The Anchovy.

These species of clupea abound in oil. When fresh, they have a sweet taste, and are nutritive; but they do not sit very light upon the stomach, especially

especially in persons who are bilious. By salting, they lose much of their alimentary properties, and become difficultly digestible. The Anchovy is only eaten as a condiment.

CYPRINUS *Barbus*. The Barbel. A coarse, unwholesome fish.

CYPRINUS *Carpio*. The Carp. A sweet, nutritive, and sufficiently digestible food. The decoction or broth of this and the following species, is esteemed a restorative, and as such is prescribed by the French and Italian physicians in consumptive and other disorders.

CYPRINUS *Gobio*. The Gudgeon. Sufficiently palatable and digestible.

CYPRINUS *Tinca*. The Tench. Soft and slimy, and difficultly digestible.

CYPRINUS *Cephalus*. The Chub. A coarse fish.

CYPRINUS *Leuciscus*. The Dace. Palatable and readily digested.

CYPRINUS

CYPRINUS *Rutilus*. The Roach. A light, palatable, and wholesome fish.

CYPRINUS *erythrophthalmus*. The Rud. Similar to the last-mentioned.

The two following species, though they are much inferior to the preceding, are sometimes brought to the table, viz. the

CYPRINUS *Alburnus*. The Bleak ; and
———— *Brama*. The Bream.

V. BRANCHIOSTEGI. O.

VI. CHONDROPTERYGII.

ACIPENSER *Sturio*. The Sturgeon. The meat of this fish is nutritive, but not very savoury. *Caviar* is prepared from the roe of this and the following species.

ACIPENSER *rutbenus*. The Starlet. The meat of this is more tender and delicate than that of the preceding.

ACIPENSER *Huso*. The Isinglas Fish, or Isinglas Sturgeon. The most valuable part of this fish is the
found,

found, or air-bladder, from which is prepared *Fish-glue*, or *Isinglas* (Ichthyocolla). Gelly made by dissolving isinglas in a proper quantity of water, is nutritive and demulcent, but is neither so palatable nor so light as chicken or calves-feet gelly. (Isinglas is also prepared from the *ACIPENSER Sturio*, *ACIPENSER stellatus*, and other species of this genus).

RAJA Batis. The Skate. Coarse, but nutritive. The same may be said of the other edible species of this genus.

PETROMYZON marinus. The Lamprey.

————— *fluvialis*. The lesser Lamprey.

————— *branchialis*. The Lampern, or Pride. These are esteemed great delicacies. They are very savoury, but not very digestible. They not unfrequently occasion fetid eructations and diarrhæa to those who eat freely of them.

E. INSECTA.

E. INSECTA.

I. COLEOPTERA. O.

II. HEMIPTERA. O.

III. LEPIDOPTERA. O.

IV. NEUROPTERA. O.

V. HYMENOPTERA.

APIS mellifica. The Bee. The Honey Bee. *Honey* (mel) the product of this useful insect, agrees in its general alimentary properties with sugar, which see. It should however be noticed, that it is rather more heating, and that it is apt to pass off more readily by stool and urine, than the prepared juice of the cane. Honey, diluted with water, is susceptible of the vinous fermentation, yielding what is called *Mead* and *Metheglin*.

VI. DIPTERA. O.

VII. APTERA.

CANCER *Mænas*. The common Crab.

—— *Pagurus*. The Black-clawed Crab. The meat within the claws of these two species is coarser and less sapid than that of the

CANCER *Gammarus*; or Lobster, which is a very palatable, considerably nutritive, and sufficiently

ently digestible food. The decoction or broth of this and the following species, is esteemed demulcent, alkalescent, and nutritious. In some countries it is prescribed as a restorative in cases of emaciation, whether with or without hectic fever.

CANCER *Astacus*. The Craw Fish. Well tasted, nutritive, and readily digested.

CANCER *ferratus*. The Prawn. Esteemed a great delicacy. In its general properties similar to the preceding; as are likewise the following, viz.

CANCER *Crangon*. The Shrimp; and

———— *Squilla*. The white Shrimp.

With respect to the digestion of the different species of cancer, there is, as Dr. Cullen has remarked (Mat. Med. Vol. I. p. 393) somewhat peculiar. He knew several instances of persons who could not take even a very small quantity of lobster or crab, without being affected soon after with a violent colic, and sometimes with that same efflorescence on the skin, which often happens from eating salmon or herrings. In both cases, these effects are, he thinks, to be ascribed to peculiarity of constitution, difficult to be accounted for.

F. VERMES.

F. VERMES.

I. INTESTINA. O.

II. MOLLUSCA.

The *SEPIA sepiola*, and *ECHINUS esculentus*, are almost the only edible genera of this order of worms; and even these are a coarse and by no means a wholesome food.

III. TESTACEA.

CARDIUM edule. The common Cockle. Palatable, nutritious, and not unwholesome; but much inferior in these respects to the

OSTREA edulis. The common Oyster; which as a delicacy and an aliment, far surpasses all the rest of the testaceous kind. In England it is much recommended to consumptive patients.

MYTILUS edulis. The eatable Mussel. Somewhat similar to the preceding; but, at certain seasons of the year, and in particular constitutions, mussels produce distressing and sometimes dangerous symptoms in those who eat them; such as a burning sensation in the fauces, swelling of the face, eyes, lips, tongue, and throat; distension of the stomach;

stomach ; erysipelatous inflammation of the skin, accompanied with intolerable itching ; difficulty of breathing, great anxiety, and in a few instances, convulsions. The remedies on these occasions are vomits and acids; particularly lemon juice, mixed with peppermint water. The occasional noxious quality of the mussel, is derived from a small species of stella marina (viz. the *ASTERIAS ophiura*) which in the months of June, July, and August, is found in the shell of the mussel. The juice of this sea-star is highly acrid and injurious. It is said, that the mussels may be completely freed from this noxious accompaniment, by washing them well in vinegar and water.

HELIX Pomatia (*COCHLEA terrestris*). The eatable Snail. Slimy and indigestible. Chiefly used for making broth (*jus cochlearum*) which is esteemed, though perhaps without much foundation, demulcent, and restorative ; and hence is sometimes prescribed in consumptive cases.

2. *From the Vegetable Kingdom.*A. HERBS. (*Herbæ oleraceæ*).

APIUM Petroselinum. (*Petroselinum*). Parsley.

A common addition to broths and soups. The root and leaves are slightly aromatic, the seeds more so. The former are somewhat nutritive, the latter, viz. the seeds, diuretic. From these last a butyraceous essential oil may be obtained by distillation. Many of the foreign pharmacopœias contain a water distilled from the fresh herb (*Aqua Petroselini*) which, however, is justly exploded from our dispensaries. As an aromatic, it is much inferior to mint-water, and as a diuretic it is of no value.

APIUM graveolens. Celery. Much used as a pot herb. The blanched stalks are slightly aromatic, and, especially when stewed, somewhat nutritive. Like the former species, it is ranked in the number of diuretics, and by some writers has been commended, but very undeservedly, as a lithontriptic.

ASPARAGUS officinalis. Asparagus. A light nutritive vegetable. It is mucilaginous, and considerably diuretic. As it is quickly dissolved in the
E stomach,

stomach, and is little disposed to create flatulence or acidity, it is, in general, well suited to weak constitutions.

BRASSICA oleracea. Colewort and Cabbage. The different species and varieties of brassica afford, for the most part, but little nourishment. They are watery, and liable to produce flatulence and colic. The least flatulent are the *Cauliflower* and *Broccoli*. Cabbage fermented with vinegar, with the addition of aromatic seeds and salt, is what is termed *Sauer Kraut*. In consequence of the fermentation it has undergone, it partakes in some degree of a vinous nature, is savoury, and sufficiently digestible. In his voyages, *Captain Cook* found it to be one of the best antiscorbutics; and *Lind* recommends it as such. What makes it preferable to many other remedies of this sort, is, that it will keep more than eight months without spoiling.

CICHORIUM Endiva. (Endiva). Endive. A bitter, wholesome vegetable, though it affords but little nourishment.

CYNARA Scolymus. (Cinara). The Artichoke. The only alimentary part, says Cullen (*Mat. Med.* Vol. I. p. 266) of this acrid plant, is the receptacle of the flower, and the portions of that which we pull

pull away from it, in pulling away the separate squamæ of the calyx. The whole of this receptacle, even in its recent state, is of very little acrimony, and by being boiled in water, is rendered perfectly mild. In its boiled state, it is of a tender texture, somewhat sweet and mucilaginous, and therefore tolerably nourishing. It is diuretic, and as such it is deemed salutary in dropfical cases.

LACTUCA sativa. Lettuce. This plant takes its name from the milky juice which it contains. Many varieties of it are cultivated in the kitchen-gardens: It is only the *LACTUCA virofa*, and *L. scariola* that possess noxious properties. Without the addition of other herbs, it affords but an insipid salad. It is more digestible when boiled than in its crude state.

LEPIDIUM sativum. (*Nasturtium hortenfe*). Garden Cress. This is one of the earliest spring vegetables. It has a pungent and somewhat bitter taste. Hence it operates in some degree as an aromatic, and promotes digestion, &c. *Lind* found it useful in scurvy.

PORTULACA oleracea. Purslane. This herb yields a watery, sharp, and somewhat saline juice.

It is readily digestible ; but proves laxative when eaten too freely.

RUMEX Acetosa. (Acetosa). Sorrel. This palatable vegetable contains an essential salt, which is similar to the acid of tartar, and may serve as a substitute for it. The French use the expressed juice of this plant as a preservative against the scurvy, in sea-voyages.

SISYMBRIUM Nasturtium (*Nasturtium aquaticum*). Water Cress. This plant has a pungent, bitter taste. *Boerhaave* and *Wiegleb* obtained volatile alkali from it. As an antiscorbutic, it is much inferior to scurvy-grass. It is eaten raw as a salad herb. By boiling, its aromatic and other properties are destroyed. The expressed juice is an ingredient in the *Succus Cochleariæ compositus* of the London and Edinburgh pharmacopœias.

SPINACIA oleracea. Spinage. This herb is insipid, and affords little nourishment. It is apt to occasion colic.

B. ROOTS.

B. ROOTS. (*Radices*).

ALLIUM ascalonicum (*Cepa ascalonica*). The Shallot.

————— *Cepa* (*Cepa*). The Onion.

————— *Porrum* (*Porrum*). The Leek.

————— *sativum* (*Allium*). Garlic.

————— *Scorodoprasum* (*Scorodoprasum*). Roccambole.

All these different species of allium coincide in their general properties. The *Shallot*, *Garlic*, and *Roccambole*, are too acrid to be used otherwise than in small quantities, by way of sauce or condiment ; but the *Onion* and *Leek*, when deprived of their acrimony by boiling, become considerably nutritive. Both are common ingredients in broths and porridge ; and the roasted onion is a favourite food with many people. The onion and leek are diuretic and expectorant ; and on these accounts they are often recommended as articles of diet to dropical and asthmatic patients.

BETA vulgaris. Beet. The root of this plant is very succulent, and, according to the experiments of *Margraaf*, yields a saccharine matter. It is considerably nutritive.

BRASSICA Rapa (Rapum). The Turnip. The different species of this vegetable, whether the root be round or oblong, white or yellow, afford a light and wholesome nourishment. When the roots are well boiled, they seldom occasion flatulence. The expressed juice is of a mucilaginous demulcent nature, and is prescribed by *Rosenstein* and *Van Swieten* in hoarse-nesses and phthifical cases.

CICHORIUM Intybus. Succory. The wild plant is considerably more bitter than the cultivated one. The fresh root is put into broths and decoctions, and the young herb is eaten in fallads. The roots, dried and roasted, are very generally used in Germany as a substitute for coffee. In some of the foreign pharmacopœias, there is a *Syrupus de Cichoreo cum Rheo*, intended as a laxative for infants. But an infusion of rhubarb alone, sweetened with sugar, at the same time that it is a more simple, is in other respects a much better preparation.

COCHLEARIA Armoracia. (Raphanus rusticanus). Horse-radish. This warm pungent root is much used as a condiment. It prevents flatulence, and promotes digestion. Its medicinal properties will be noticed in another place.

CONVOLVULUS

CONVOLVULUS *Batatas*. Spanish Potatoe. In alimentary properties this root agrees with the common potatoe. It is, however, less palatable on account of its sweetness; and, upon the whole, is perhaps not so proper as a principal and constant article of food, as the solanum tuberosum; which see.

DIOSCOREA, <i>alata</i> .	}	Yams.
———— <i>bulbifera</i> .		
———— <i>sativa</i> .		

These roots, when well boiled or roasted, are very mealy and nutritious. They resemble the potatoe; but are much sweeter, and consequently to European palates not so pleasant. They constitute the chief food of the Negroes in the West Indies.

DAUCUS *Carota*. The Carrot. This root abounds in a mucilaginous, saccharine juice. It is considerably nutritive; and when sufficiently boiled, as little flatulent as most of the esculent roots. When eaten freely, it proves laxative.

HELIANTHUS *tuberosus*. Jerusalem Artichoke. The knots or tubercles of these roots, when baked,
E 4 roasted,

roasted, or boiled, become perfectly mealy, like potatoes. They are rather sweeter than these last; but are quite as wholesome and nutritious, and may on all occasions be used in their stead. See an Enumeration of the Principal Vegetables that may be substituted in place of Wheat and other Bread-Corn. Lond. 1796.

JATROPHA manihot. Bitter Cassada.

JATROPHA Janipha. Sweet Cassada. It is from the roots of these shrubby plants, that the substance called *Tapioca* is prepared. It abounds in mucilage, and is highly nutritious. As it is supporting without being heating, it is, like sago, a proper article of diet for the sick and convalescent.

ORCHIS mascula. Salep. It is from the root of this and other species of this genus, that the sweetish, mucilaginous, and highly nutritive powder, called *Salep*, is prepared. The pottage or decoction made from it, is a valuable article of diet for the sick and infirm. It is particularly useful in cases of hectic fever and phthisis; in large suppurations; after amputations, &c. in which it affords a light and mild aliment. By virtue of its mucilaginous properties, it is serviceable in diseases of the

the urinary passages, viz. in dysury, strangury, gravel and stone, &c. and also in some affections of the intestinal canal, such as diarrhæa, and dysentery.

PASTINACA sativa. Parsnep. This root is very nutritious, but many people cannot bear it on account of its peculiar sweet flavour. *Weikard* relates that the root becomes poisonous, if it is suffered to remain in the ground throughout the winter.

RAPHANUS sativus. The Raddish. Of this there are several sorts, differing in the colour and shape of the roots. All of them are warm and acrid to the taste. They abound in water, afford little nourishment, and in many constitutions produce flatulence and indigestion.

SCORZONERA hispanica. Viper's-grass. Mucilaginous and slightly nourishing.

Sium Sifarum. The Skirret. This root, as appears from the experiments of *Marggraf*, abounds in saccharine matter. It is considerably nutritive, and, when boiled, readily digestible.

SOLANUM tuberosum. The Potatoe. Excepting the cerealia, few vegetables are so universally used

used as this. As an article of sustenance, the potatoe has two excellent recommendations, it is palatable, and may be cultivated at little expence. Hence it becomes admirably suited to the poor. The potatoe contains a large quantity of farinaceous and amylaceous matter, and when of a good quality, and properly boiled or roasted, affords a wholesome, digestible food, little liable to produce flatulence. It is only when their properties have been altered by growing in a bad soil, and by being badly preserved, or when they have been eaten to excess, that potatoes have proved unwholesome. *Blane* and *Gillespie* gave raw potatoes to some scorbutic sailors with good effect.

TRAGOPOGON porrifolium. Salsafi. This root contains a sweetish milky juice. In its general properties, it resembles the scorzonera, and like it, is but slightly nutritious. Both the one and the other might be readily dispensed with.

C. FRUITS (*Fructus*).

ARTOCARPUS incisa. The Bread Fruit. The fruit of this tree, which may be said to surpass all other vegetables in point of *immediate* utility (as it requires so little pains in respect both of its culture and

and preparation for food) is used while it is yet green, in which state it is roasted till the outside becomes scorched and black. The outer part is then rasped off, and the inner part, which is soft and white, like the crumb of new bread, is used for food. It is very wholesome and nutritious; but in taste comes nearer to a sweet potatoe or Jerusalem artichoke, than to wheaten bread.

BERBERIS vulgaris. The Barberry. The berries of this shrub abound in an acid, which *Retzius* and *Scheele* found to coincide in many of its properties with the acid of tamarinds. With the addition of sugar, it forms an agreeable sweetmeat. In some of the foreign pharmacopœias, we find the following preparations from this fruit, viz. (1) *Syrupus Berberum* (2) *Rob Berberum*, and (3) *Rotulæ vel Trochisci Berberum*. The last are used to allay thirst.

BROMELIA Ananas. The Pine Apple. On account of the delicate quick poignancy of its juice, this fruit (to use the words of the Reverend *Dr. Milne*, Author of two useful works, the *Botanical Dictionary* and *Indigenous Botany*) deserves the appellation it has universally obtained of *King of Fruits*. Yet we have known its poignant acid juice, howsoever grateful its taste and fragrant its odour,

odour, to disagree with many people ; and *Plenk* remarks, on what authority we know not, that it is deemed hurtful to pregnant women.

The fruits of some other species of this genus, such as the

BROMELIA Pinguin ; and

———— *Karatas*, are likewise edible ; but, on account of their greater acidity, in much smaller quantities than the Pine Apple. Their sharp juice, diluted with water, is used as a refrigerant in fevers in the West Indies.

BROSIMUM Alicastrum. The Bread Nut. The boiled fruit of this tree has frequently been the support of the Negroes and poorer sort of the white people in times of scarcity. It is a wholesome and not unpleasant food. When roasted it eats something like Chestnuts. See *Browne's* Natural History of Jamaica.

CITRUS Aurantium (*Aurantium*). The China Orange and Seville Orange. The juice of the first, or *China Orange*, is mucilaginous, sweet, and sub-acid. It is exceedingly pleasant, cooling, and nutritious. It is powerfully antiscorbutic, and is very serviceable

serviceable in many fevers, especially in those that are of a bilious nature. The bitter essential oil which resides in the rind, is a fine aromatic. The juice of the *Seville Orange* is rough, sour, and somewhat bitter; it is less palatable, but more stomachic, as well as more antiseptic, than the juice of the former. Hence, in bilious fevers, dysentery, &c. it is preferable to the other. The rind of this is also more aromatic than that of the china orange. The peel or rind of the *Seville orange* enters into the following preparations of the British pharmacopœias, viz. (1) *Aqua corticis Aurantiorum*, Ph. Ed. (2) *Conserva Aurantii*, Ph. Lond. et Ed. (3) *Infusum Gentianæ compositum*, Ph. Lond. et Ed. (4) *Spiritus Raphani compositus*, Ph. Lond. (5) *Syrupus Aurantii corticis*, Ph. Lond. et Ed. (6) *Tinctura Aurantii corticis*, Ph. Lond. (7) *Tinctura Cinchonæ composita*, Ph. Lond. (8) *Tinctura Gentianæ composita*, Ph. Lond. et Ed. And the juice is one of the ingredients in the (9) *Succus Cochleariæ compositus*, Ph. Lond. et Ed. In the foreign dispensatories, an essential oil and a spirit are distilled from the peel.

CITRUS *medica*. (Limon). The Lemon. The juice of this fruit consists of a peculiar acid, called the citric acid (*Scheele*) and the acid of sugar (*Westrumb*). It is best concentrated by congelation;

tion; but the juice must previously stand at rest for some time, to allow the mucilaginous parts to settle at the bottom. Lemon-juice, diluted with water and sweetened with sugar, is employed to allay thirst in (1) Febrile disorders; to correct putrefaction in (2) Putrid fevers; and in (3) Scurvy (4) Bilious fevers (5) Dysentery. It is moreover like all other acids (6) an Antidote against Vegetable Narcotic Poisons, and especially opium. It is also serviceable in cases in which noxious fungi have been eaten. It is a good corrector and agreeable sauce for many kinds of animal food, and especially fish. In our pharmacopœias, we have the (1) *Syrupus Limonis succi*, and (2) *Succus Limonis spissatus*. The peel or rind is one of the ingredients in the (3) *Infusum Gentianæ compositum*, Ph Lond. et Ed. and the distilled oil or *Essence* enters into the composition of the (4) *Spiritus Ammoniacæ compositus*, Ph. Lond. and *Spiritus Ammoniacæ aromaticus*, Ph. Ed.

Cucumis Melo. (Melo). The Melon. Of this fruit there are many varieties, differing from each other in the firmness and sapidity of their fleshy part. They all abound in a watery, saccharine juice; and are accordingly cooling and laxative. If eaten too freely, they are apt to excite tormina and diarrhæa.

CUCUMIS

CUCUMIS sativus. (Cucumis). The Cucum-ber. This is a watery, mucilaginous fruit. In its crude state, it is cold upon the stomach, and difficultly soluble; and on these accounts, when it is eaten raw, it proves very hurtful to many constitutions. When stewed, it affords a light and wholesome nourishment.

FIGUS Carica. (Carica). The Fig. The fresh ripe fruit is filled with a sweet mucilaginous juice, which is considerably nutritious. The flavour, however, is not very pleasant; and when swallowed too freely, it disorders the stomach and bowels. The dried fruit is more palatable, as well as more nutritive. It is an ingredient in the *Electuarium Sennæ*, Ph. Lond. et Ed. and in the *Decoctum Hordei compositum*, Ph. Lond.

FRAGARIA vesca. The Strawberry. A pleasant, cooling, wholesome fruit. Strawberries are much recommended in phthifical, calculous, and gouty cases.

MESPILUS germanica. The Medlar. This fruit is rough and astringent. It is not edible till it begins to decay, in which state it seems to undergo somewhat of a vinous fermentation, and thereby acquires a rich and poignant flavour, highly agreeable

able to many palates. In this state it is a sufficiently wholesome fruit.

MORUS nigra. The Mulberry. The berries of this tree have a pleasant subacid taste. They are cooling and laxative; but if eaten too freely, are apt to occasion diarrhæa. In the foreign dispensaries there is a *Rob Mororum*; and in the London pharmacopœia a *Syrupus mori*.

MUSA paradisiaca. The Plantain Tree. The boiled and roasted fruit of this valuable tree is much used as a substitute for bread in the West Indies and South America. It is very nutritious, and is thought to answer better than wheaten-bread or Indian corn for the hard-labouring Negroes. The fruit of the

MUSA sapientum, or Banana, is much more palatable than that of the preceding species. The dried pulp of this fruit is often used in the West Indies for preparing a refreshing beverage, which is made by dissolving it in water.

PHÆNIX dactylifera. (Dactyli). Dates. The fresh ripe fruit abounds in a sweet mucilaginous juice, and is very nutritive. The dried fruit is less
so.

so. For a long tract of country on the coast of Arabia, the common people live entirely upon dates and salted fish. The unripe fruit is a fattening food to camels and other animals. A vinous liquor and ardent spirit are prepared from the fruit steeped in water. In their medicinal properties, dates coincide with figs and raisins, being reckoned, like them, demulcent and pectoral. They enter into some of the officinal preparations of the foreign pharmacopœias ; but have no place in ours. They may well be dispensed with, figs being preferable for every pharmaceutical purpose.

PRUNUS Armeniaca. (*Malum Armeniacum*). The Apricot. When thoroughly ripe, a sweet, nutritious, and not unwholesome fruit.

PRUNUS domestica. The Plum. Of this fruit there are numerous varieties. They rank among the *fructus acido dulces*. When perfectly mature, they are pleasant and somewhat nutritive ; but they readily ferment on the stomach, and when eaten too freely, are apt to occasion flatulence, tormina, and diarrhœa. The dried fruit of the variety called *Brignola*, *Pruneola* vel *Prunella* (French Prunes) is a gentle laxative ; and is an ingredient in the *Electuarium Sennæ* of our pharmacopœias.

F

PRUNUS

PRUNUS Cerasus. (Cerasus). The Cherry. The juice of all the different varieties of this fruit, is very palatable and somewhat nutritive; but the fleshy or pulpy part, and especially the skins, are heavy and indigestible. Those cherries are the wholesomest which have the softest and least fleshy pulp. In general, it may be remarked of this fruit, that it should be eaten sparingly. People, and especially young people, should be cautious not to swallow the stones, concerning which it is a mistaken notion among many, that they promote the digestion of the pulp. Dangerous obstructions of the bowels have frequently been the consequence of this mistake. The *Aqua cerasorum* in the foreign pharmacopœias, is a trifling preparation; and the *Syrupus cerasorum* and *Rob cerasorum* of those dispensatories, have no advantage whatever over any of the other acidulous syrups and inspissated juices.

PUNICA Granatum. (Malum seu Pomum Granatum). The Pomegranate. The red succulent pulp within this fruit is cooling, and of a pleasant acidity, not very unlike to that of limes or oranges. It affords little nourishment. Of the medicinal properties of the other parts of the pomegranate, notice will be taken hereafter.

PYRUS communis. (*Pyrus hortensis*). The Pear. Of this fruit there are upwards of one hundred varieties. Pears are, for the most part, a wholesome, refreshing fruit ; yet they prove cold, and sometimes occasion flatulency in those who have weak stomachs. The baked is more salutary than the raw fruit. The expressed juice, subjected to fermentation, yields the vinous liquor called *Perry* (*Pyraceum*) which, when kept to a proper age, and of a good quality, is a very wholesome beverage.

PYRUS Cydonia. (*Cydonium malum*). The Quince. This fruit is not eatable in its crude state. An elegant sweetmeat, called *Marmalade* (*Miva cydoniorum*) is prepared from it, by baking it with a proper quantity of sugar.

PYRUS Malus. (*Pomum seu Malum hortense*). The Apple. Of this fruit there are many varieties. Both the sour and the sweet are very palatable and sufficiently salutary. In the crude state, they sometimes produce flatulence and acidity, which inconveniencies are prevented by having them baked or boiled. They are then more wholesome and more nutritive. The vinous liquor, called *Cyder* (*Pomaceum*) is prepared from the expressed juice of this fruit.

ribes Grossularia. (Grossularia). The Gooseberry. A cooling, palatable fruit. Eaten too freely, it gripes and purges.

ribes nigrum. The Black Currant. A pleasant, cooling, subacid fruit. The skin or husk should always be rejected, as it is very indigestible. In the London pharmacopœia, there is the *Succus ribis nigri spissatus*, and the *Syrupus ribis nigri*.

ribes rubrum. The Red Currant. Similar in most respects to the preceding.

Rosa canina. (Cynosbatum). The Hip. This fruit is used chiefly as a sweetmeat. In our pharmacopœias, the only preparation from it is the *Conserva cynosbati*.

Rubus idæus. The Raspberry. A pleasant, cooling, wholesome fruit. It is much infested with grubs, the larvæ of different insects, which should be carefully picked out, as they are apt to produce mischief when swallowed. The *Syrupus rubi idæi* of the Lond. Ph. is an elegant preparation.

Vaccinium Myrtillus. (Myrtillus). The Bilberry.

VACCINIUM

VACCINIUM *Oxycoccus*. (Oxycoccus). The Cranberry.

VACCINIUM *Vitis-idaea*. (Vitis-idæa). Red Whortle-berries.

The berries of all these species of vaccinium have a pleasant acidity, accompanied with some degree of astringency. Cranberries baked with a proper quantity of sugar, make an agreeable sweet-mear. It is said that the berries of the vaccinium myrtillus are much employed in Germany and other parts of the Continent, for giving a colour and roughness to the new white wines, which are thereby (with the help of a little alum) made to pass for genuine red wines.

VITIS *vinifera*. The Grape. The varieties of the vine are exceedingly numerous. In general, the ripe fruit is cooling, antiseptic, and nutritious; and when eaten in considerable quantity, diuretic and gently laxative. Hence in the wine countries, fresh grapes supply the place of mineral waters. The skins or husks, and the seeds or stones, are indigestible, and should always be rejected. The fresh fruit is very serviceable in dysentery (*Zimmerman* on the Dysentery) and according to *Moore* (View of Society and Manners in Italy, Vol. II.

Letter 62) in pulmonary consumption. In bilious and putrid fevers, fresh ripe grapes are much to be recommended. *Raisins* (*Uvæ passæ*. *Passulæ folis*. *Passulæ majores*) and *Currants* (*Passulæ minores*, the fruit of the *Vitis Apyrena*) are ripe grapes dried in the sun. They are more laxative and less cooling than the fresh fruit. The *Uvæ passæ* are esteemed pectoral and stomachic, and enter into the *Decoctum Hordei compositum*, the *Tinctura Cardamomi composita* and *Tinctura Sennæ*, Ph. Lond.

It is well known that all the different kinds of *Wine* (*Vinum*) properly so called, are prepared from the fermented juice of this fruit. *Must* (*Mustum*) is the expressed, unfermented juice. *Vinegar* (*Acetum*) is the juice converted into an acid, by passing from the vinous into the acetous fermentation. *Spirit of Wine* (*Spiritus vinosus*) is alcohol or ardent spirit obtained from wine and other fermented liquors, by distillation. Of wine and ardent spirit, further notice will be taken when we come to treat of DRINKS.

D. SEEDS. (*Semina*).

AMYGDALUS communis. (*Amygdalæ*). The Almond. Of this there are several varieties ; but what

what we shall here remark, applies only to the *sweet almonds* (*Amygdalæ dulces*). These kernels are pleasantly flavoured and nutritious. They are so rich in oil, that it constitutes nearly half their weight. On this account they prove heavy, and not very digestible, when eaten in considerable quantity, especially if they have not been well preserved, and the oil has become rancid; but when taken in moderate quantity, and duly broken down by mastication, they are sufficiently wholesome. The skin or husk which envelops the kernel, should always be carefully peeled off, as it contains an acrid matter, which by its irritation excites coughing, and by reason of its insolubility in the stomach, produces oppression and heart-burn. Sweet almonds are used in a great variety of confectionary, and sometimes in soups. The officinal preparations from them in our pharmacopœias, are the *lac* and *oleum amygdalæ*.

ANACARDIUM occidentale. The Cashew-nut. The kernels contained within the kidney-shaped nuts of this tree, are sweet and palatable, and agree in their alimentary properties with almonds and the rest of the *nuces oleosæ*.

AVENA sativa. Oats. In the northern parts of Europe, this grain is the principal subsistence of

the inhabitants. The meal is made into thin, flat cakes (*panis avenaceus*) which are baked or roasted. These *oat-cakes* have a bitter dry taste, which at first is disagreeable, but which by time and usage, becomes pleasant and grateful. *Groats*, or oats, freed from the husks (*avena excorticata*) are much used in making broths, puddings, &c. They are wholesome, and gently laxative. *Gruel* (*Decoctum avenæ*) is prepared by boiling either the meal or groats, for a proper length of time, in water. It is moderately nutritive, demulcent, and aperient. *Sooins*. Prepared by letting oatmeal and water stand together till the liquor becomes acidulous, when it is poured off and boiled to a jelly. *Pringle* and *Blane* relate, that in several instances the scurvy has been prevented and cured by this preparation alone.

Cocos nucifera. The Cocoa-nut. The white kernel of the fresh nut is palatable and nutritious, and the liquor contained in the shell is a cooling, wholesome beverage to the inhabitants of those sultry climates where the tree grows. See Drinks.

COFFEA arabica, Coffee. See Drinks.

CORYLUS

CORYLUS Avellana. (Avellana). The Filbert. Like the almond, the kernels of this nut abound in oil. When fresh, and well masticated, they are not, in moderate quantity, unwholesome; but if they are swallowed without being sufficiently chewed, and in large quantities, they oppress the stomach, and bring on obstructions of the bowels. The skin should always be carefully peeled off before they are eaten.

FAGUS Castanea. (Castanea). The Chestnut. Less oily and more farinaceous than the preceding nuts. The raw fruit is not readily dissolved in the stomach; but when properly softened by roasting, it is rendered sufficiently light and nutritive. In both states the fruit is somewhat astringent.

HORDEUM vulgare. Barley. To the inhabitants of the Alps, and some of the northern parts of Europe, this grain is the principal article of sustenance. Yet the meal itself is not quite so nutritive as that of some other sorts of corn. (1) *Barley-bread* (*panis hordeaceus*) has a sweetish, not unpleasant taste, but is viscid, and not readily digested.

(2) *Pearl Barley* (*hordeum perlatum, hordeum excorticatum*). Used in broths. It has been customary

tomary to employ the right, viz. decorticated seeds only for making broths; but according to the late valuable experiments of Count *Rumford* (*Essays on Feeding the Poor*, 1796) the entire or rough seeds of the common barley may be used for this purpose with equal, if not greater, advantage. It is only necessary to continue the boiling longer. Such a decoction is highly nutritious. The *decoction of pearl barley* (*decoctum hordei*, *aqua hordeata*) is a common drink in febrile disorders. Various additions may be made to it, such as lemon-juice, cream of tartar, wine, raisins, milk, &c. according as circumstances require.

(3) *Barley Sugar* (*saccharum hordeatum*) is prepared by dissolving sugar in barley-water, and evaporating the solution to the point of crystallization. It is given in coughs and hoarsenesses, especially to children.

(4) *Malt* (*Maltum vel Malta*) is barley made to germinate, and afterwards dried. *Wort* (*infusum malti*) is recommended by *Macbride* as an antiscorbutic, and has been found serviceable by other practitioners in various cases, as shall be noticed hereafter.

(5) Various kinds of *Beer* (*cerevisia*) of which an account will be found under the title of DRINKS.

JUGLANS

JUGLANS regia. The Walnut. (*Nux juglans*). The kernel of the ripe fruit is highly palatable and nutritious. It should be well peeled before it is eaten, as the skin which invests it is bitter, acrid, and astringent. The green, unripe fruit, steeped in vinegar, is one of our most sapid and least unwholesome pickles.

ORYZA sativa. Rice. This grain is the common sustenance of many nations of the East. It contains a light and very soluble mucilage, and does not become acescent so readily as the other kinds of grain; consequently it is not so apt to occasion flatulency. It is commonly supposed to possess a drying and astringent quality, and hence is recommended in diarrhæa and dysentery. It has, however, no real astringency, and its effects, as such, in the cases just mentioned, are entirely owing to the light and not readily fermentable mucilage which it contains. It may be used, like pearl barley or groats, in broths and decoctions; but its greatest consumption is in puddings and stews. It appears from the experiments of the Board of Agriculture, that it may be very advantageously mixed with wheat flour for the composition of bread. The proportions for this purpose, should be three parts wheat flour and one part rice meal. The weakness of sight and blindness to which the Chinese are

are remarkably liable, have been ascribed by most travellers to the frequent use of *hot* rice ; but we are at a loss to conceive in what respects boiled can differ from unboiled rice, except in temperature and softness, two circumstances which tend to render it more digestible. The true source of disordered vision, so common among that luxurious people, is to be sought for in the abuse of venery, joined to the abuse of tea, spices, and other narcotics and aromatics.

Panicum Italicum.

———— *miliaceum.* Millet. (*Milium*). The decorticated seeds of both these species, and the meal or flour prepared from them, are much used as articles of food in Italy, France, and Spain ; and also in some parts of Germany. In those countries, they boil the millet-flour with water or milk, so as to form a thick pottage, which is very nourishing, and by no means unpalatable. It is also made into puddings and cakes, which are eaten with butter, and sometimes with wine. In some parts of Italy, and particularly in Lombardy, it is made into bread, which, however, soon becomes dry and stale, and is digested with difficulty.

PHASEOLUS vulgaris. The Kidney-bean. The fruit of this leguminous plant is eaten in two different

ferent states, viz. the pods (with the seeds) while they are yet tender and green, and the seeds after they are perfectly ripe. In both cases they are prepared for the table by boiling. The young green pods are palatable, little liable to create flatulency, but not very nourishing. On the other hand, the ripe seeds are considerably nutritive, agreeing, in this respect, with ripe pease, but, like them, somewhat flatulent.

PISTACIA vera. The Pistacia-nut. Agrees with the almond in its alimentary properties, but is softer and considerably more digestible than it.

PISUM sativum. The Pea. Green, tender and fresh pease, are a wholesome and light food. When full grown and dried, they afford a strong nutriment. When triturated with water, they yield a sort of emulsion. In many places the meal obtained from them is made into bread, which, however, without a large admixture of wheat-flour, is hard, heavy, and unpalatable. By steeping the pease-meal in water, the harsh flavour is (as we are informed by the Board of Agriculture) taken off, so that when mixed with wheat-flour, the taste is hardly to be perceived. We are further told, from the same authority, that pease-meal, by being
boiled

boiled previous to being mixed with wheaten-flour, incorporates more easily with that article, and probably is much wholesomer than otherwise it would be. Yet, after all, pease are scarcely fit to be manufactured into bread, and should therefore never be employed for this purpose when better materials can be had.

POLYGONUM *Fagopyrum*. Buckwheat. (*Fagopyrum*. *Frumentum faracenicum*). The seeds of this plant, though not so nutritious as wheat, rye, and some other grain, are nevertheless proper for the support of man. They are much used in Brittany, where they are made into cakes. The method employed for this purpose in France, is described in the Account of Experiments on the Composition of Bread, by the Board of Agriculture. In many parts of the Continent, the country people use a decoction of this grain to stop diarrhæas and fluxes.

SECALE *cereale*. Rye. A very common bread corn among the inhabitants of the northern parts of Europe. It is less nutritive than wheat ; but is a sufficiently supporting and wholesome grain, except when it chances to be corrupted by the *ergot*, so called by the French, and by medical writers *secale*

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corniculatum vel *cornutum*, & *clavus secalinus*. Rye, thus vitiated, has been accused by several respectable observers, of producing a fatal spasmodic disorder (known to Nosologists by the name of *Raphania*) as well as inflammation and mortification of the bowels, and sphacelation of the extremities. (*Scrinci* Med. Siles. Satyr. *Salerne* Memoires presentés à l'Acad. des Sciences. *Tissot* Epist. medico pract. & *Bergius* apud *Murray*, V. 5). This accusation is strongly supported by the experiments of *Scrinci*, *Salerne*, and *Tessier* (*Maladies des grains*. Paris, 1783) who killed a number of poultry and some swine by feeding them with it. On the other hand, Messrs. *Model*, *Parmentier* (*Recreations physiques, économiques et chimiques*. Paris, 1774) and *Schleger* (*De clavis secalinis*. Cassell, 1772) assert, that they have given ergotted rye to different brute subjects, without perceiving them to be disordered by it. Some of them even ventured to eat it themselves, which they did without experiencing any bad effects from it. They acknowledge, however, that in several of the animals, to whom it was given, it occasioned costiveness and distention of the belly, inconveniencies which have been observed to arise from its use among the country people in Sweden (*Wablin* in the Swedish Transactions).

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In whatever way these contradictory accounts may be reconciled, we cannot help thinking with Professor *Murray*, that the *secale cornutum* is very unwholesome; and that, when taken into the body in considerable quantity, and for much length of time, it is capable of producing deleterious effects; but, that when mixed with large proportions of sound grain, its action is so far blunted and restrained, that it is prevented from proving materially hurtful; just as metallic salts and some other poisonous matters are either rendered inert or deprived of most of their virulence by commixture with mucilaginous fluids or dilution with water. For more on this subject, see *Phil. Trans.* Vol. 55, p. 106. *Haller's* Disputationes ad morb. Hist. Vol. 4. *Linnaei* Amœnitat. Academ. Vol. 6, and lastly, *Taube's* History of the disease, called *Raphania*, published (in the German tongue) at Gottingen, in 1782.

(1) *Rye-bread*. (*Panis fecalinus*). Is of a dark brown colour, and readily becomes aced, on which account it disagrees with weak constitutions, lying heavy on the stomach, and producing a looseness. The *bon pour nickel*, or *pumper nickel* of the Germans, is made of rye-meal, without having the bran separated from it. It is digested very difficultly,

ficultly, but is very nutritious. *Rye-pottage*. (Pulmentum vel jusculum secalinum) is said to be a useful article of diet in consumptive cases.

Like wheat and other grain, rye may be made to yield a strong spirit, or brandy.

THEOBROMA Cacao. The Chocolate-nut. The white kernel of the recent nut is much liked and eaten freely in both Indies; but in this country, we receive it manufactured into cakes, after being roasted, ground to a powder, and mixed up with sugar, forming what is called *Chocolate*, for which see Drinks.

TRITICUM æstivum, hybernum, Spelta. Wheat. Spelt. If we except rice, wheat appears to be the most nutritive of all grain. It is certainly superior to all for the manufacture of bread. Wheat flour (*farina tritici*) is resolvable into three distinct parts, viz. (1) *Starch* (*amylum*) (2) *a mucilaginous saccharine matter* (*principium dulce mucilaginosum*) and (3) *gluten*. The two first are of a vegetable nature, whilst the latter possesses the properties of animal substances, being susceptible of the putrefactive fermentation, and yielding volatile alkali. This vegeto-animal matter in wheaten flour, was first discovered by *Beccari* in 1728, and described by

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him in the Commentaries of the Academy at Bologna. These three constituent parts of wheat flour may be obtained separate, by taking some dough and washing it repeatedly with water, till it ceases to render the water milky or turbid. What is left undissolved is the glutinous part; the other two ingredients are contained in the water employed in washing the dough. By leaving this water at rest, the starch settles at the bottom, while the sweet mucilaginous principle remains suspended alone, and is easily separated by evaporation. A pound of wheat flour, treated in this manner, generally yields about four ounces of gluten, eleven ounces two drams of starch, and six drams of saccharine mucilaginous matter.

Wheaten-bread. (Panis triticeus). The most perfect of all bread. It has long been a subject of controversy with physicians, whether bread be proper for infants. Numerous authorities might be quoted both for and against its use in early life; but we do not think it worth the practitioner's while to be at the trouble of referring to all that has been written on this point, concerning which it may suffice to say, that for the first five or six months after birth, bread is little suited to the digestive powers of an infant's stomach, and will therefore seldom fail, if much is given, to produce flatulence and costiveness,

costiveness, and to lay the foundation for mesenteric obstructions and ricketty affections ; but, that after that period, and especially when the child is about a twelve month old, a sparing use of it may be allowed, the quantity being increased as the young subject uses more bodily motion, and acquires strength. What is here said relates to children naturally stout and healthy ; where the reverse is the case, bread ought to be withheld for the first eight or ten months. The proper substitute in place of it, is biscuit-powder in small quantities, or a well boiled decoction of groats.

In respect to adults, it may be remarked that the quantity of bread which they consume, should be proportioned to the age, sex, constitution, and mode of life. Thus, supposing the hardy day-labourer to require 2 lbs. per day, 1 lb. should suffice for the man who lives at his ease ; and studious and sickly persons should not eat more than half a pound or a quarter of a pound in the same space of time. In England it is too much the custom to swallow more bread than is necessary.

Biscuit. (Panis biscoctus). This, in equal quantities, is more nutritive than bread. It is also lighter, and less liable to create acidity and flatulence.

Vermicelli, Macaroni, &c. are chiefly composed of the fine flour of wheat, and are consequently very nutritious.

Besides *Starch*, already mentioned, another artificial product from wheat, is *ardent spirit*, or *Brandy*.

Vicia Faba. The broad Bean. The green immature feeds, when well boiled, are a wholesome garden stuff; but like all pulse, rather flatulent. Concerning the meal from the ripe dried feeds, the same may be said of it that has been before said respecting the meal from pease.

Zea Mays. Maize. Indian Corn. This species of grain is the staple article of sustenance in North America, and some parts of the West Indies. It is very wholesome, and gently laxative. In those countries, and in the Southern part of Europe, various preparations are made from the meal. It is cultivated in Italy, where it is made into cakes. The celebrated *polenta* of the Italians is prepared from maize.

By itself the meal of this corn does not rise well into bread; but when boiled to the consistency of paste,

paste, and mixed with wheat flour, it makes excellent loaves. See Account of Experiments by the Board of Agriculture on the Composition of Bread. Lond. 1795; and a pamphlet, entitled Some Information on Indian Corn. Lond. 1795.

Like all other grain, it may be made to yield a sort of *beer*, and ardent spirit.

Having omitted them in the alphabetical order, we shall here insert the

FESTUCA fluitans. Flote Fescue-grass. (*Manna polonicum*). The seeds of this grass are gathered yearly in Poland, and from thence carried into Germany and sometimes into Sweden, and sold under the name of *Manna Seeds*. They are much used at the tables of the great, on account of their nourishing quality and agreeable taste. See *Stillingfleet's* Miscellaneous Tracts.

HOLCUS Sorghum. Guinea Corn. (*Melica*). The common food of the Negro-slaves in the West Indies. They call it *Guarnot*, and make it into

pap, puddings, bread, &c. This grain is very nourishing, but is not very readily dissolved in the stomach, and is somewhat constipating—hence it is only fit for those who lead a laborious and active life.

The following substance coincides so much in its alimentary properties with the preceding articles, that it readily presents itself to be noticed under the same head with them, though it is not strictly one of the cerealia.

Sago. This substance is prepared from the pith of a species of Palm, the *Cycas Circinalis*, or *Cycas revoluta*. It is an inodorous, insipid, but highly nutritious mucilage. To make it palatable, it is customary to add to it, when boiled or softened with hot water, some lemon-juice, sugar, and wine. It is a common article of diet for the sick and convalescent.

E. SEA-WEEDS. (*Algæ*).

LICHEN islandicus. Iceland, or Ernygo-leaved Liverwort. (*Muscus islandicus*). This plant is considerably mucilaginous; and when deprived of
its

its bitterness and laxative property, by maceration in hot water, and afterwards boiled with a fresh quantity of water mixed with milk or broth, or with milk alone, it yields a wholesome and nutritious pottage, very common among the Icelanders. In this country it is only used as a medicine. Its properties as such shall be noticed under the class of TONICS.

Fucus esculentus. The eatable fucus.

——— *saccharinus*. The sweet fucus.

——— *digitatus*. The fingered fucus, or sea girdle.

——— *palmatus*. The handed fucus, or Dills.

These and some other species of fucus are, in the Northern parts of this island, and in Ireland, eaten either raw or boiled. They are a poor and not very digestible food.

F. FUNGUSSES. (*Fungi*).

AGARICUS campestris. The common Mushroom. Savoury, and somewhat nutritive; but not very readily digested, and therefore oppressive to weak stomachs, when eaten freely. Besides this, there

are several other esculent agarics ; but as they are all of them a species of food more suited to give pleasure to the palate than health and strength to the body, we do not think it necessary to enumerate them.

LYCOPERDON *Tuber*. (*Tuber cibarium* of Bulliard). Truffle. Accords with the mushroom in its general properties. The same may be said of the

PHALLUS *esculentus*. The Morell.

3. Of Condiments. (*Condimenta*).

All the variety of condiments may be ranked under three general heads ; the (A) *Saline* (B) the *Aromatic*, and (C) the *Oleaginous*.

A. The saline may be subdivided into the (*a*) saline, strictly so called (*b*) the acid, and (*c*) the sweet. Among the proper *Saline*, the most general is the

(*a*) NATRON *muriatum*. Common Salt. Sea Salt. (*Sal commune*. *Sal culinare*. *Sal marinum*. *Soda muriata*). By its stimulant action upon

on the fauces, œsophagus and internal surface of the stomach, common salt seems to promote the secretion of the saliva and of the gastric juice, and thereby facilitates digestion. It is in this way, and not as Sir *John Pringle* has represented, by its septic or solvent action upon the food itself, that we account for its use as a condiment or help to digestion. In small quantities it is salutary not only to man, but to many of the brute creation. It is only when it is taken too plentifully, that it proves injurious to the living body, depraving the blood, and producing scurvy. It is improper, even in small quantities, for young children. From what we have said, it is easy to see that the free and frequent use of salted meat and salted fish cannot be wholesome.

Among the acid and sweet condiments, the principal are vinegar and pickles, and sugar and preserves, so called.

(b) ACETUM. Vinegar. (Acetum vini). Wine Vinegar. In small quantities, the acetous acid is a grateful and salutary stimulus to the stomach. It corrects the putrefactive fermentation of some kinds of animal food, and prevents many vegetable substances, especially when eaten raw, from proving too flatulent, and thereby promotes their digestion. It is at all times cooling and antiseptic.

These

These remarks on the general effects of vinegar, relate only to persons in health. Its use is improper in many valetudinary cases. In particular, it is hurtful to calculous and gouty persons, to consumptive and chlorotic subjects, to rickety patients, and to young children.

What is said of vinegar, may be applied to *Pickles* (aceto condita) whose effects upon the organs of digestion are chiefly ascribable to the acetous acid which they have imbibed. Like that acid, a sparing use of them is allowable, and may be serviceable, to persons in health ; but is improper in the diseased conditions above enumerated.

(c) SACCHARUM. Sugar. (Saccharum officinarum). This saline substance is nutritious, antiseptic, and laxative. As it renders oily matters in some degree miscible with water, it promotes the solution of fat in the stomach. Yet it is not free from objections, being of a very fermentable nature, and on that account producing flatulence, heat, and thirst in many constitutions. Its unlimited use seems to be one cause of the increased and increasing frequency of bilious and hypochondriacal disorders. Chlorotic girls, rickety children, hysterical women, and all who are troubled with acidity in the stomach and bowels, should abstain from it ;

it; and those who are anxious to preserve their teeth white and sound, should not make free with it. To these observations, however, there are some constitutions which furnish exceptions. Thus we are told, that one of the Dukes of *Beaufort* took, for the space of 40 years, nearly a pound of sugar every day; yet it neither disordered any of the viscera, nor injured the teeth, and he lived to attain the age of 70. See other instances of this kind collected by *Murray*, V. 5. p. 416. *Hoffmann* de Saccharo, 1701. *Astruc* an Saccharum alimentum? 1759. *Carteuser* de Saccharo, 1761. *Baume* Cautela de Sacchari usu, 1776.

What is said of sugar, applies to *Preserves* (saccharo condita) of which, however, the dried sort are not very digestible.

B. Of the *Aromatic Condiments*, some have been already noticed under the order of pot-herbs. Such are the

ALLIUM *sativum*. Garlick.

——— *Porrum*. Leek.

——— *Ascalonicum*. Shallot.

——— *Cepa*. Onion.

COCHLEARIA

COCHLEARIA *Armoracia*. (Raphanus rusticanus). Horseradish.

SINAPIS *nigra*. Common Mustard.

SALVIA *officinalis*. Sage.

THYMUS *vulgaris*. Thyme. These are all considerably stimulant, and, except the two last, diuretic. In small quantities, they give energy to the digestive organs, especially in phlegmatic and corpulent subjects; but if taken too freely, they excite heat and thirst.

PIPER *nigrum*. Black and White Pepper. This, as Murray has remarked, is the most common of all spices, not only in the East and West Indies, but in Europe, whither it is imported in such quantities as to constitute a great and staple article of commerce. In the hot climates, where the stomach requires to be powerfully stimulated, it is taken along with the food in large quantities; and instead of proving heating, has a cooling effect, by enabling the body to resist and support the exhausting action of the sun. But in temperate climates, and especially in this country, it is less necessary, and should therefore be used with a sparing hand. In small quantities, pepper is useful to gouty and paralytic people.

people. Where it has been abused, it has produced violent and sometimes fatal inflammations of the stomach, intestines, lungs, and liver ; and it is at all times hurtful to the plethoric and to those who are subject to the piles.

PIPER longum. Long Pepper. Similar in its properties to the preceding. Is an ingredient in the *Pulvis aromaticus*, *Tinctura Cinnamomi composita*, *Pulvis Cretæ compositus*, and *Confectio opiata*.

The same may be said of the dried berries of the *Myrtus Pimenta*. (Pimento). Jamaica Pepper or Allspice. In our pharmacopœias, we have an *Aqua Pimento* and a *Spiritus Pimento*.

CAPSICUM annuum. (Piper Indicum). Guinea Pepper.

CAPSICUM baccatum. Cayenne Pepper. The most stimulant of all spices. Too acrid and irritating for general use in European countries ; but, in small quantities, serviceable in some cases of languor and in-irritability, and especially in gouty and paralytic affections.

LAURUS Cinnamomum. (Cinnamomum). Cinnamon. The true cinnamon is one of the most palatable

latable and wholesome spices, very useful in debilities of the stomach and bowels, in diarrhæa, &c. but the bark of the *Laurus cassia*, which is much inferior in its aromatic properties, is too frequently passed off for the genuine cinnamon. Enters into a great variety of officinal preparations, the principal of which are the *Aqua*, *Spiritus* and *Tinctura Cinnamomi*, the *Pulvis Aromaticus*, *Confectio Aromatica*, *Trochisci Cretæ*, &c. See *Thunberg* in the Swedish Transactions for the year 1780.

MYRISTICA Moschata. (*Nux Moschata*). Nutmeg. A strong, pungent aromatic, of an agreeable flavour, but the least wholesome of all the spices. The acrid essential oil which it contains, is of a narcotic nature, and has been known to affect the head very powerfully in some instances, producing vertigo, stupor, and delirium. (*Murray* Appar. Med. Vol. VI. 145). Hence its use is improper in apoplectic and paralytic cases. See *Cullen's* Mat. Med. *Mace* (*Macis*) which is the skin or tunic that immediately invests the nutmeg kernel, coincides in its properties with the kernel itself. In our pharmacopœias, we have a *Spiritus Nucis moschatæ*; and this spice is an ingredient in the *Spiritus Raphani compositus*, *Spiritus Lavendulæ compositus* and *Confectio Aromatica*. The expressed oil, called
Oleum

Oleum Macis enters into the *Emplastrum Ladani*.
Thunberg de Myristica. Upsal, 1789.

CARYOPHYLLUS aromaticus. (Caryophylli aromatici). Cloves. These may be reckoned among the finest and warmest aromatics. Their smell is peculiarly grateful. They are an useful stimulus to the stomach and system at large, in weaknesses of the primæ viæ, in gouty cases, &c. Cloves are an ingredient in the *Confectio Aromatica*, and in the *Cataplasma Cumini*. *Thunberg de Caryophyllis aromaticis*. Upsal, 1788.

AMOMUM Zingiber. (Zingiber). Ginger. A warm, and by no means unpleasant aromatic, preferable to most other spices, as possessing little acrimony, and consequently rarely known to irritate and inflame. It is an useful addition to flatulent vegetables, and some of the cold summer and autumnal fruits. Our pharmacopœias have a *Syrupus* and a *Tinctura Zingiberis*; and it is an ingredient in a great variety of compositions, such as the *Pulvis Aromaticus*, *Trochisci Magnesiæ*, *Confectio opiata*, &c. *Gesner de Zingibere*, 1723.

C. Among the *Oleaginous Condiments*, are to be noticed the

OLEA Europæa. (*Oleum Olivarum*). Salad Oil. When used as a seasoning to raw vegetables,
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it checks their fermentation in the stomach, and thereby prevents them from proving too flatulent. Used in this manner, in small quantities, it proves a help to digestion; but when taken in considerable quantities, it has an opposite effect, and lays the foundation for bilious complaints. And

BUTYRUM. Butter. The moderate use of melted butter (*butyrum coctum vel liquefactum*) with boiled vegetables, is, in general, by no means unwholesome; but it frequently disagrees with bilious and hypochondriacal people.

4. *Of Alimentary Liquors, or Drinks. (Potulenta).*

A. AQUA communis. Water. Either pure or with additions, water is the universal drink of the human race. Without a proper quantity of it, the solution of solid animal and vegetable food would be difficultly effected in the stomach, a due supply of fluid to the sanguiferous and lymphatic system would be withheld, the vessels would cease to be sufficiently full and distended, the process of nutrition would be incomplete, and all the secretions and excretions would be defective. Hence it is obvious, that water is absolutely necessary to the maintenance of health, and though not immediately, yet indirectly necessary to the support of life. Other useful purposes which water serves, are to dilute the fluids,

fluids, to moisten and soften the solids, to moderate heat, and quench thirst. Hence its use in fevers. Where custom or disease has not altered the human constitution, it is, as it comes from Nature's hands, the most salubrious of all drinks. Those, who, from their youth, have made it their constant and almost only beverage, have generally enjoyed the stoutest health, the best spirits, and the longest life. It is only where bad habits or accidental causes have impaired the body, that aromatic or spirituous additions to it become necessary; as in the case of gouty, paralytic, and dropical persons. *Hoffmann* de *Aquæ Naturâ et Virtutibus*, 1710, à *Berger* de potu *Aquæ salubri et noxio*, 1718. *Engelhard* effectus *Aquæ communis*, 1776.

Cold Water is tonic and invigorating. *Warm Water* is the reverse. *Heinius* de noxis et abusu *Aquæ calidæ*, 1747.

B. VEGETABLE INFUSIONS AND DECOCTIONS.

(a) *THEA Bohea*. The Tea-tree. *THEA viridis*. Green Tea. All the various kinds of tea, says *Woodville* (*Med. Bot. Part II. p. 117*) imported into this country, come under the denomination of *Bohea* and *Green*; and even these are supposed

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to be the produce of the same species of plant ; though *Linnaeus* has described them as specifically different, founding the distinction in the number of their petals. Others have observed a difference in the leaves. Still, however, it is uncertain whether these are not mere accidental differences, occasioned by diversity of soil, situation, and culture. While, as the Author above quoted remarks, the present narrow and jealous policy of the Chinese continues, many interesting particulars respecting the natural history of this plant must remain unknown to Europeans.

It had been well for the inhabitants of Great Britain, if the tea-leaf had never found its way to this country ; they would not then have been tormented, as thousands of them now are, with an incurable train of nervous symptoms, with stomachic and bowel-complaints, with head-ach, &c. To the abuse of tea-drinking, may be ascribed, in a great measure, the increased frequency of consumptions ; and many of the disorders of children, and especially hydrocephalus, tabes mesenterica, rickets, &c. may be traced to the same source.

The tea-leaf, when fresh from the tree, is evidently poisonous. It is true that it loses some of its acrimony by drying ; but even in the state in which it is sent to this country, it retains much of
its

its narcotic nature. What serious mischief, then, are they bringing upon themselves, who, as is the case with too many of the lower class of society, make it a principal part of their daily subsistence! The money which should go to purchase wholesome and substantial food, is squandered away in procuring what, of itself, affords no nourishment at all; for whatever nourishment is derived from the infusion of tea, is owing to the sugar and milk which are added to it: And were it not for those additions, its deleterious effects would be much sooner and much more powerfully felt.

The time, it is to be hoped, is not far distant, when the poor shall be enlightened upon this important point. The next generation will hardly believe that their predecessors lavished away so much money, and took such extraordinary delight in defrauding their bodies of their proper and natural aliment, and in bringing upon themselves infirmity and disease. Let the rich and the intemperate indulge, if they chuse, in the narcotic draught; to their heated and oppressed stomachs it may not do harm; it may even afford momentary relief. But let the poor abstain from it. They are not surcharged with high-seasoned food. They have no feverish thirst, no feverish heat to allay, after their noon-day repast. To them it is totally un-

necessary as a help to digestion ; and as an article of sustenance, it is worthless and improper. They would, therefore, be better, infinitely better, without it.

Besides its narcotic quality, there is another property of the tea-leaf which renders its continued use injurious to the constitution ; I mean its astringency. Add to these the warm water, and we have, in this unnatural beverage, the infusion of tea, three different powers concurring to disorder first the organs of digestion, and ultimately the whole system.

If it be asked, what are they who have been long accustomed to tea to substitute in its place, I answer milk, milk-porridge, gruel, broth, cocoa, or the like for breakfast ; and in the afternoon, milk and water, orgeat, or lemonade in the summer, and coffee in the winter.

It should be understood, that the preceding remarks apply to the general abuse of tea as an article of sustenance ; for its occasional employment in a dietetical and medicinal way in some kinds of sickness, is often of use. Thus, the simple infusion, without sugar or milk, is a good diluent and sedative

tive in ardent fevers; and as it promotes perspiration and urine, it is frequently drunk with advantage in colds, catarrhs, rheumatism, head-ach, &c. It is also serviceable in cases of surfeit and indigestion. *Linnaeus* de Potu Theæ, 1765. *Lettson* on the Tea-tree, 1772.

(b) *COFFEA arabica*. (Semina Coffeæ). Coffee. The infusion or decoction of the roasted seeds of the coffee-berry, when not too strong, is a wholesome, exhilarating, and strengthening beverage; and when mixed with a large proportion of milk, is a proper article of diet for sedentary and delicate people. When drunk very strong, it proves stimulating and heating in a considerable degree, creating thirst and producing watchfulness. By an abusive indulgence in this drink, the organs of digestion are impaired, the appetite is destroyed, nutrition is impeded, and emaciation, general debility, paralytic affections, and nervous fever are brought on.

In a dietetical and medicinal way, coffee has been found useful in asthmatic affections (*Floyer, Musgrave, Pringle, Percival*) in intermittent fevers, diarrhæa, &c. It is employed with success to counteract and correct the narcotic effects of opium. *Fischer* de Potûs Coffee Ufu et Abusu, 1725. *Stabl*

de usu et effectibus Coffee, 1740. *Gmelin* de Coffea, 1752. *Linnaeus* de Coffee potu, 1761. *Ellis* Account of Coffee, 1774. *Moseley* on Coffee, 1785.

(c) THEOBROMA *Cacao*. (Nuclei *Cacao*). Chocolate. More nourishing and less heating than coffee. It is commonly made too thick ; but when of a proper degree of strength, it is a very palatable and wholesome beverage. It is frequently recommended as a restorative, in cases of emaciation and consumption. On account of its oily quality, it is oppressive and cloying to some stomachs.

Cocoa being a lighter drink, agrees better with most people. It is slightly astringent, like coffee, but less heating. *Stahl* de Chocolatâ Indorum, 1736. *Cartbeuser* de Chocolatâ, 1764. *Linnaeus* de potu Chocolatæ, 1765.

C. FERMENTED LIQUORS & ARDENT SPIRITS.

(a) CEREVISIA. Malt Liquor. Beer and Ale. (*Cerevisia tenuis et fortis*). Well fermented malt liquors, whether from barley or other grain, provided they be not too strong, are wholesome, refreshing, and strengthening drinks. As these
liquors

liquors are very nutritious, they are chiefly suited to persons who lead a busy and active life. With sedentary and bilious persons, they do not agree so well; and they are improper for the corpulent and asthmatic, and those who are liable to giddiness or other complaints of the head. They are better when of a middle age, than when kept very long. Beer made from the infusion of *malted groats* (*cerevisia avenacea*) or *malted rye* (*cerevisia secalina*) is lighter and more diuretic than the common *barley-beer* (*cerevisia hordeacea*). *Spruce-beer* (*cerevisia pini*) is a powerful diuretic and antiscorbutic; it is, however, too cold for some constitutions. *Bottled-beer* (*cerevisia lagenaria*) is, on account of the fixed air which it contains, more refreshing than the barrelled. It is frequently prescribed as an antiseptic and restorative in low fevers and convalescencies; but care must be taken, during the use of it, that it do not operate too freely by stool. *London-Porter* (*cerevisia nigra Londinensis*) with the common properties of malt-liquor, possesses such stomachic and diuretic qualities, as give it a preference over common beer and ale, in many cases. Being, however, strongly impregnated with bitters, of a narcotic kind, it is apt to induce drowsiness, and consequently is improper wherever there is a tendency to cephalalgia, apoplexy, or other affections

of the head. *Alberti de Cerevisiæ potu*, 1732.
Tode de Cerevisiâ, 1775.

(b) VINUM. Wine. A temperate use of wine is conducive to health. All the functions, both of body and mind, are roused and facilitated by it. It has a powerful effect upon the organs of digestion, upon the circulation, and upon the nervous system, promoting digestion, strengthening the action of the heart and arteries, and raising the spirits. Such is its beneficial operation, when taken sparingly. In excessive quantities, it has opposite effects, destroying the stomach, inducing emaciation and debility, and occasioning inflammation and obstruction in the liver, lungs, &c. whence gout, palsy, dropsy, consumption, diabetes, &c.

In a dietetical view, wines are to be considered as they are, either acid or sweet, soft or austere. The acid wines, of which the *Rhenish* and *Hock* (*Vinum rhenanum*) are the most noted, are the least heating, and the most diuretic. The sweet, such as the *Frontinac* (*Vinum Languedocium*) *Malaga* (*V. Malaccense*) *Tent* (*V. Tinto*) *Cape* (*V. Capense*) &c. are heating and sudorific. The soft, or acidodulcescent wines, such as *Champagne* (*V. campanicum*) *Claret* (*V. Burdigalense*) *Burgundy* (*V.*
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Burgundicum) *Madeira* (V. *Maderaicum*) &c. are less stimulating than the sweet, and more cordial than the acid wines. Of the austere and astringent, that which is most used in this country, is the *Red Port* (V. *Portugalicum*) which, when it has not been mixed with too large a proportion of brandy, is a generous and stomachic wine, well suited to the generality of British constitutions. *Buchner de Vino, ut medicina et veneno*, 1756. Of the medicinal use of wine, notice will be taken in the proper place.

Perry and *Cyder* (*Vinum pomaceum*) hold a middle place between wine and malt liquor. They are less nutritious than the latter, and less cordial than the former.

(c) *SPIRITUS vini*. (*Spiritus vinosus*). Ardent Spirits. In small quantities, ardent spirits are a powerful cordial and corroborant, raising the pulse, strengthening the stomach, promoting digestion, and preventing flatulence. Taken sparingly, and diluted with water, they supply the place of wine, and with some constitutions agree better, as they are not, like wine, disposed to create acidity. The abuse of them is productive of the same pernicious effects as those which arise from an excessive indulgence in wine; but in a greater degree.

French

French Brandy (Spiritus vini Gallicus) is the most bracing and stomachic ; *Gin* (Spiritus Juniperi) and *Rum* (Spiritus Sacchari vel Taffia) the most diuretic and sudorific. *Arrak*, which is distilled from rice (Spiritus oryzæ) is more styptic and heating than the two last. The qualities of all these different sorts of spirits, are improved by long keeping.

D. ANIMAL FLUIDS, USED AS DRINKS.

(a) Lac vaccinum. Cow's Milk.

(b) Lac ebutyratum. Butter Milk.

(c) Serum lactis. Whey. Cheese Whey.

For remarks on the alimentary and dietetical uses of cow's milk and its preparations, see pages 11 and 16.

(d) Lac caprillum. Goat's Milk, See p. 8.

(e) Lac asininum. Asses Milk. See p. 18.

E. OF

E. ANIMAL INFUSIONS AND DE-
COCTIONS.

(a) Infusum carnis bubulæ. Beef Tea. See p. 11.

(b) Jus carnis bubulæ concentratum. Beef Gravy, Broth, or Soup. See p. 11.

(c) Jusculum vitulinum. Veal Broth. See p. 11.

(d) Jusculum vervecinum. Mutton Broth. See p. 10.

(e) Jusculum pullinum feu gallinaceum. Chicken Broth. See p. 27.

(f) Jus testudinis concentratum. Turtle Soup. See p. 33.



PART II.

MEDICINAL
SUBSTANCES.

EVACUANTS. A. ERRHINES.

(1) *From the Vegetable Kingdom.*

ASARUM *Europæum*. Dodecandria. Monogynia. Sarmentaceæ. Indigenous. (Folia). Asarabacca. In modern practice, and especially in this country, it is seldom used but for the purpose of increasing the mucous discharge from the nose, which intention it answers very effectually, and is accordingly the principal ingredient in the sternutatory compositions of our own and foreign dispensaries; such as the *Pulvis Asari compositus* of the London, Edinburgh, and Swedish pharmacopœias, and the *Pulvis Sternutatorius* of the Danish pharmacopœia. The leaves only are now prescribed as an errhine; but formerly the dried roots, as well as leaves, were employed as an emetic, cathartic, and diuretic, in doses of twenty or thirty grains. Other preparations, such as infusions and decoctions, have also been made from the roots, in the proportion of one or two drachms to a pint of water, reduced by evaporation to half the quantity, and taken in doses of an ounce every second or third hour, in dropsies (*Allioni*). Certainly this plant
possesses

possesses great activity, but at the same time a degree of virulence, which renders its use in any other way, except as a sternutatory, hardly adviseable. *Schulz de Afaro, 1739.*

¶ *IRIS Florentina.* Triandria Monogynia. Enfatæ. Italy. (Radix). Florentine Iris, corruptedly Orris, or Orrice. The dried root of this plant enters into the composition of some of the foreign sternutatory powders; but as an errhine, it is much inferior to the *asarum, marum syriacum, nicotiana, &c.* and may therefore be dispensed with.

¶ *LAVENDULA Spica.* Didynamia. Angiospermia. Verticillatæ. Suffrutex. France, Spain, Italy. (Flores, seu Spicæ florentes). Lavender. As an errhine, the dried flowers, or flowering spikes of this odoriferous plant, may well be dispensed with.

NICOTIANA Tabacum. Pentandria. Monogynia. Solanaceæ. America. (Tabacum. Folia). Tobacco. The powder from the dried leaves of this plant, is the basis of all the different sorts of
Snuff,

Snuff, and is consequently more in use than any other errhine. Where habit has not rendered the Schneiderian membrane insensible to its stimulus, it excites sneezing, and promotes the mucous discharge from the nostrils very powerfully. Hence, the occasional application of it is serviceable in cases of cephalalgia, ophthalmia, &c. but on account of its narcotic quality, it is not so proper as the asarum, in apoplexy, lethargy, deafness, and some other diseases of the head. In respect to its habitual use, it can have no good effect as a remedy, and as a matter of fashion, it is not only disgusting, but is injurious to the health. *Stabl de Tabaci effectibus salutaribus et nocivis*, 1732. *Buchner de genuinis viribus Tabaci*, 1746, *de Meza de Nicotianæ Ufu noxio et salutari*, 1775.

¶ *ORIGANUM Majorana*. Didynamia. Gymnospermia. Verticillatæ. Wild in the Southern parts of Europe. (*Majorana*. *Herba*). Sweet Marjoram. As an errhine, superfluous.

¶ *ROSMARINUS officinalis*. Diandria. Monogynia. Verticillatæ. France, Spain, Italy. (*Cacumina vel summitates florentes*). Rosemary. The dried flowering

ing tops of this shrub are a common addition to sternutatory powders, to which, however, they communicate more odour than activity.

TEUCRIUM Marum. Didynamia. Gymnopermia. Verticillatæ. Spain, Greece, Crete. (*Marum Syriacum.* Herba). Herb Mastick. A powerful and useful errhine, less acrid than the *asarum*, and preferable in most cases to the *nicotiana*, as being free from all narcotic quality. It is an ingredient in the *Pulvis Asari compositus* of our pharmacopœias.

VERATRUM album. Polygamia. Monœcia. Liliacæ. Switzerland, Italy, Austria, Siberia. (*Helleborus albus.* Radix). White Hellebore. A few grains of the dried root of this plant, snuffed up the nostrils, produce violent sneezing, and a copious discharge of mucus. Hence it has been recommended as a sternutatory in apoplexy, lethargy, and other disorders of the head; but as it possesses considerable virulence, it should not be employed, even in this way, without very great caution. Of the external use of White Hellebore, notice will be taken under the class of HETEROCLITES.

(2) *From the Mineral Kingdom.*

HYDRARGYRUS *vitriolatus*, L. Ph. Hydrargyrus vitriolatus flavus, Ed. Ph. (Mercurius emeticus flavus. Turpethum minerale). Vitriolated Quicksilver. Turbith Mineral. One grain of this mercurial salt, rubbed with a little powdered liquorice root, and snuffed up the nose, acts as a powerful sternutatory, and has been found serviceable in diseases of the head and eyes, in which last cases it has been lately much recommended by Mr. *Ware*. For further remarks on this article, and for various formulæ of sternutatory powders, see *Thesaurus Medicaminum*.

B. SIALAGOGUES.

(1) *From the Vegetable Kingdom.*

AMOMUM *Zingiber*. Monandria. Monogynia. Scitamineæ. East Indies, and by transplantation, West Indies. (*Zingiber. Radix*). Ginger. The dried root kept in the mouth some time and well chewed, provokes a considerable flow of saliva, and hence has proved serviceable, when used in this way, in relaxations and strumous affections of the tonsils, in some disorders of the stomach, and
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in palfies of the tongue and muscles of the face. It has this advantage over many other masticatories, that no harm can arise if it should not be entirely thrown out with the spittle.

ANTHEMIS Pyrethrum. Syngenesia. Polygamia superflua. Compositæ radiatæ. Southern parts of Europe, but a native of Barbary. (*Pyrethrum. Radix*). Pellitory of Spain. This root is a more powerful sialagogue than the preceding. It is suited to the same cases, and is moreover a common remedy against the tooth-ach. It may be used either in substance, or in the form of an infusion or decoction, which last must be made in a covered vessel, otherwise the active particles of the root will be carried off with the steam.

DAPHNE Mezereum. Octandria. Monogynia. Vepreculæ. Indigenous. (*Mezereum. Radix*). Mezereon. The root of this shrub chewed in the mouth, cured a difficulty of swallowing, seemingly occasioned by a paralytic affection (*Withering*). According to *Pallas*, it is employed, in this way, in some parts of Russia, against the tooth-ach, care being taken not to swallow the spittle, which from its acrimony would inflame the throat (*The-saurus Med.* p. 287). It seems to surpass the

pyrethrum in sialagogue power. Of its other uses, mention will be made under the class of STIMULANTS.

PISTACIA *Lentiscus*. Diæcia. Pentandria. Amentaceæ. Arbor. Portugal, Spain, Italy, Chio. (Mastix. Mastiche-Resina). Mastick. A lump of this resin chewed in the mouth, is a long-established remedy in paralytic affections of the tongue, and of the muscles concerned in deglutition, and also in the tooth-ach. It is chiefly indebted to its agreeable odour for the preference which it has generally received before some other articles of this division.

(2) *From the Mineral Kingdom.*

HYDRARGYRUS. (Argentum vivum. Mercurius). Quicksilver. Mercury. Spain, Tyrol, Hungary, East Indies, South America. This is the most useful of all metallic substances, not even excepting antimony itself, in the healing art. The place of antimony as an emetic and sudorific, and of iron as an astringent and tonic, might be supplied by various articles from the vegetable kingdom; but what other substance from any of the three kingdoms of nature, is capable of supplying
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the place of quicksilver in certain cutaneous diseases, in cases of lymphatic and visceral obstructions, in tetanus and hydrophobia, and in syphilis ?

Over all other medicines, quicksilver possesses the peculiar advantage of operating on the living body as efficaciously, in many instances, when applied externally, as when taken by the mouth. Hence, where the stomach and bowels cannot bear it in sufficient quantity, another channel by which it may be conveyed into the system, still remains open, we mean the pores of the skin ; and in some cases, where the urgency of the symptoms requires it to be exhibited without loss of time, and in large quantities, both modes of introducing it may be employed at once.

Excepting the exhibition of it in ileus (see CATHARTICS) in its pure liquid state, this metallic substance is variously modified and changed by pharmaceutical and chemical treatment, in order to fit it for medicinal use. Thus altered, it is perhaps more extensively employed than any other article, unless it be opium, in the materia medica.

There are five modes by which quicksilver is altered or prepared for medicinal use, viz. by (1) *trituration* (2) *dry or igneous calcination* (3) *humid*

or *acid calcination* (4) *sulphuration*, and (5) *salification*.

(1) By continued trituration with saccharine, mucilaginous, oily or fatty, and earthy substances, not only are the particles of quicksilver minutely divided, but the globuli are at the same time slightly calcined, by having their surfaces repeatedly brought into contact with the air. In this state of subtile division and imperfect calcination, quicksilver operates in a very efficacious, but mild manner, upon the human body: Accordingly, the triturated preparations of this metal, are in very general use. Of these, the principal are the

(a) *Pilulæ Hydrargyri*, Ph. Lond. et Ed. Quicksilver Pills. (*Pilulæ Mercuriales*). In both pharmacopœias, the medium employed in the trituration is a saccharine-mucilaginous substance, viz. in the one rose-conserve, and in the other manna. Of the London preparation, twelve grains contain four of quicksilver; of the Edinburgh, one dram contains fifteen grains of the same metal. Of either, six or eight grains may be given twice a day, in the venereal disease, and in the cases before mentioned, till the mouth becomes affected. To prevent the pills from passing too quickly through the bowels,

bowels, a quarter of a grain of opium may be added to every dose. Of the use of this preparation of quicksilver as a purge, notice will be taken under CATHARTICS.

¶ (b) *Hydrargyrus saccharo tritu commixtus*. (Mercurius saccharatus vel Saccharum Mercurii of the foreign dispensatories. Quicksilver triturated with sugar. The epithet saccharatus improper, that term being used by *Bergman* to denote a chemical combination with the saccharine acid, whereas in this instance there is simply a mechanical commixture with sugar itself). An uncertain preparation, which may well be dispensed with.

¶ (c) *Mistura Hydrargyri mucilaginosæ*. Mucilaginous Mixture of Quicksilver. Called also, improperly, *Solutio mercurialis gummosa*, there being no solution, but only a division and suspension of the metal. This preparation, which from the name of its inventor is sometimes simply denominated *Solutio Plenckiana*, is made by triturating quicksilver with mucilage of gum arabic, till the globules disappear, and afterwards gradually diluting the mucilage with some distilled water, so as to bring it to the form of a mixture (see *Thesaurus Medicaminum*, p. 15). It is employed both internally and

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externally,

externally, in venereal and other cases. Eight ounces of this mixture contain one dram of quicksilver, and the dose is an eighth part night and morning. It is also used as a gargle in venereal ulceration of the fauces, as a collyrium in venereal ophthalmies, and as an injection in gonorrhœa. But for all the purposes of a topical application, a solution of muriated quicksilver is preferable; and for internal exhibition, the quicksilver pills or calomel generally answer better. The practical objections to this medicine are, that, varying in its strength as it comes from the hands of different compounders, it is very uncertain in its operation; and the pharmaceutical objections are, that it requires too much time and trouble in its preparation; for, in order to divide the globules so minutely as to have them completely suspended, the trituration must be continued not for fifteen minutes only, as *Plenck* has directed, but for the space of a whole hour; and even then, if the mixture is suffered to remain long without being shaken up, some of the metallic particles will separate and fall to the bottom. Upon the whole, therefore, notwithstanding the high encomiums bestowed upon it by its inventor (*Plenck* *Methodus nova argentum vivum exhibendi*, 1766) the *Mistura hydrargyri mucilaginosâ* may well be erased from the long list of mercurial preparations.

(d) *Unguentum*

(d) *Unguentum Hydrargyri*, Ph. Lond. et Ed. Quicksilver Ointment. (*Unguentum cæruleum*. Blue Ointment). Made by triturating quicksilver with hog's lard and mutton suet until the globules disappear. In the London pharmacopœia, there are two sorts of this ointment, viz. the *Unguentum Hydrargyri fortius* and the *Unguentum Hydrargyri mitius*. Of the first, or stronger ointment, two drams contain one dram of the metal; of the second, or weaker ointment, six drams contain only one dram. One dram of the *Unguentum Hydrargyri* of the Edinburgh pharmacopœia, contains twelve grains of quicksilver.

Mercurial inunction consists in rubbing a proper quantity (viz. one dram of the stronger, or two of the weaker) of these ointments upon the inside of the thighs every night (or, as some think better, half the before mentioned quantity, night and morning) till the mouth becomes affected. The quicksilver particles applied in this manner to the pores of the skin, are sucked up by the absorbents, and carried into the circulation, where they produce the same effects as they do when given by the mouth. This mode of applying mercury is frequently resorted to in venereal cases, in hydrocephalus, hydrophobia, tetanus, &c.

In the *Emplastrum Ammoniaci cum Hydrargyro*, and *Emplastrum Lithargyri cum Hydrargyro*, Ph. Lond. the quicksilver is triturated with sulphurated oil, and afterwards mixed with the other ingredients. The *Emplastrum Hydrargyri* (*Emplastrum cæruleum*) Ph. Ed. is made by triturating the quicksilver with oil and resin (previously melted together, and suffered to become cold) and afterwards mixing the whole gradually with melted litharge plaster. These mercurial plasters are applied to glandular indurations and tumors, whether from the venereal virus, or from other causes; to the knee-joint in white swellings of that part; to the right hypochondrium in schirrosity of the liver, &c.

¶ (e) *Hydrargyrus cum creta*. Ph. L. Quicksilver with Chalk. (*Mercurius alkalizatus*). This is prepared by triturating quicksilver with chalk, till the globules disappear. It might have been more appositely termed *Hydrargyrus cum creta tritu commixtus*, or simply *Hydrargyrus cretaceus*. Fifteen or twenty grains of this preparation are commonly given for a dose; but it is very uncertain in its operation, and ought to be expunged from our pharmacopœia.

(f) Hy-

¶ (f) *Hydrargyrus cum Sulphure*, Ph. L. Quick-silver with Sulphur. *Hydrargyrus sulphuratus niger*, Ph. Ed. Black Sulphurated Quicksilver. (*Æthiops mineralis*). In our pharmacopœias, this is prepared by triturating quicksilver with sulphur till the globules disappear. As there is no chemical combination, it cannot properly be called sulphurated quicksilver, though the Edinburgh College has adopted that term. Its title should be *Hydrargyrus cum sulphure tritu commixtus*. For the reason just mentioned, viz. because it is only mechanically mixed, and not chemically combined with the sulphur, we have placed it here rather than under the division of quicksilver altered by sulphuration. When, however, it is made as directed in some of the foreign dispensatories, by mixing it with melted sulphur, then a chemical union is effected; and when so made, it belongs to the sulphurated preparations. In the British pharmacopœias, the composition is made with equal parts of quicksilver and sulphur. Dose, from ten grains to half a dram. This is a very uncertain preparation, and should be left undisturbed on the apothecary's shelves.

¶ (g) *Hydrargyrus Antimonio tritu commixtus*. (*Æthiops Antimonialis*). One part of quicksilver
rubbed

rubbed with two parts of crude antimony, reduced to a fine powder, till the globules disappear. Dose, from five to ten grains. Like the last, it is a very uncertain preparation, and may always be superseded by extemporaneous compositions of calomel and precipitated sulphur of antimony.

(2) By the combined action of heat and air, in other words, by dry or igneous calcination, is obtained the

Hydrargyrus calcinatus, Ph. L. Calcined Quicksilver. (*Mercurius calcinatus*). *Mercurius præcipitatus per se*. Red calx of mercury. This preparation is sometimes employed in venereal cases. The usual dose is one grain every night, or night and morning, made into a pill. As it is apt to purge, a quarter or half a grain of opium is generally added to it.

Notwithstanding the partiality shown by some eminent practitioners, and particularly by the late Mr. *John Hunter*, to calcined quicksilver, in venereal cases, it is a preparation too active for weak and irritable subjects, and is therefore not so generally proper as calomel.

(3) The

(3) The preparations by humid or acid calcination, are the

(a) *Hydrargyrus nitratus ruber*, Ph. Lond. et Ed. Red nitrated Quicksilver. (Mercurius corrosivus ruber. Mercurius præcipitatus ruber. Red Corrosive Mercury. Red Precipitate). Prepared by dissolving quicksilver in the nitrous acid, evaporating the solution, and subjecting the residuum to a strong heat, until it is converted into red shining squamulæ. For making this preparation, we would recommend the process of the Edinburgh in preference to that of the London pharmacopœia.

The degree of heat to which this preparation is subjected, is supposed to be sufficient for expelling all the nitrous acid, whence it is commonly looked upon as a mere calx of quicksilver. If this were the case, the appellation of nitrated quicksilver would be highly improper. There is little doubt, however, that some of the acid remains combined with it, after it has undergone the action of the fire. Hence its activity is so much greater than that of the hydrargyrus calcinatus—too violent for internal use. Accordingly, it is never prescribed in any other way than as an external application. It is much used by the Surgeons to cleanse and stimulate old ulcers, to destroy proud flesh, to induce suppurative

purative inflammation in glandular, scrophulous fores, and is occasionally added to ophthalmic ointments, in ulcerations of the eye-lids (psorophthalmia) and obfuscations of the cornea. The basis of the *Balsamum Ophthalmicum rubrum* of *St. Yves*, is nitrated quicksilver. The proportion, about one part to nine of butter, or ointment of hog's lard. It is a very strong application, and should be used in very minute quantities (only as much as equals a large pin's head, night and morning) and with great caution.

¶ (b) *Hydrargyrus vitriolatus*, Ph. Lond. *Hydrargyrus vitriolatus flavus*, Ph. Ed. Vitriolated Quicksilver. Yellow vitriolated Quicksilver. (Turpe-
thum Minerale. Mercurius emeticus flavus. Turbith mineral. Yellow emetic mercury). Obtained by dissolving quicksilver in the vitriolic acid, evaporating to dryness, and washing the residuum repeatedly with hot water, till it becomes tasteless. This preparation is of a yellow colour. It is a calx of quicksilver, retaining a very small portion of vitriolic acid. It was formerly prescribed as an emetic, in doses of three, four, or five grains, in swellings of the testicles from a venereal origin; but as the benefit derived from it in these cases, was solely attributable to the nausea and vomiting, and as these effects can be as powerfully, and less hazardously, produced

produced by other means, its use in this way is now very justly exploded. It has been recommended in hydrophobia, but, as we are disposed to think, upon very uncertain grounds. On the whole, we are persuaded that this preparation of quicksilver is too virulent for internal use, and need not be kept in the apothecary's shop, unless it be to serve as an Errhine.

(c) *Calx Hydrargyri alba*, Ph. L. White Calx of Quicksilver. (*Mercurius præcipitatus albus*. White Precipitate of Mercury). Prepared by dissolving muriated quicksilver in water impregnated with sal ammoniac, and afterwards adding to the solution a proper quantity of water of prepared kali. The powder which falls to the bottom, on adding the water of prepared kali, is quicksilver deprived of nearly all the muriatic acid with which it was before combined. It is afterwards washed with water till it becomes tasteless. It is only used as an external application. The *Unguentum Calcis Hydrargyri albæ* of the London pharmacopœia, consists of one dram of the calx and one ounce and a half of ointment of hog's lard. A small portion of this ointment, rubbed between the fingers and upon the wrists, every night till the pimples go off, is an effectual cure for the itch. See *Thesaurus Medicaminum*, p. 361.

(d) Hy-

(d) *Hydrargyrus præcipitatus cinereus*, Ph. Ed. Grey, or ash-coloured Precipitate of Quicksilver. (*Pulvis mercurii cinereus*. Grey mercurial powder). Obtained by adding to a diluted solution of nitrated quicksilver, a sufficient quantity of water of ammonia, and afterwards washing and drying the precipitate. This preparation is a calx of quicksilver. It is given in venereal cases, in the quantity of two or three grains twice a day. Being less apt to disorder the stomach and bowels than most of the other mercurial preparations, it is in many instances preferable to them. *Hahneman's* mercurius solubilis (for precipitating which from the nitrous solution, water of pure ammonia is used) is a preparation similar to this. *Amelung de Mercurio solubili Hahnemani*, 1792. Appendix to *Thesaurus Medicaminum*, article 1.

(4) By the fulphuration of quicksilver, we mean a chemical union of quicksilver with sulphur, in contra distinction to a mere mechanical mixture, of which last the *hydrargyrus cum sulphure*, Ph. Lond. and *hydrargyrus sulphuratus niger*, Ph. Ed. are examples, and have been already treated of under the head of quicksilver, altered by trituration. But when the *æthiops mineralis* is prepared, as directed in the Swedish and some other foreign pharmacopœias, by fusion or liquefaction, instead of trituration,

ration, then a chemical union, and consequently a true sulphuration is effected ; and hence we have to notice in this place, the

¶ (a) *Hydrargyrus sulphuratus niger fusione paratus*. Black sulphurated quicksilver, prepared by fusion. (The *Æthiops Mineralis* of the Swedish dispensatory). Obtained by melting sulphur in an iron pot, adding quicksilver to it, and keeping the whole in a state of liquefaction, stirring it all the while, until the two ingredients appear to be intimately united. After the mass is taken from the fire, and is become cold, it is rubbed to a powder in an iron mortar. Like the *Æthiops mineralis*, prepared by trituration, this is a very uncertain preparation, and ought to be banished from every modern pharmacopœia.

¶ (b) *Hydrargyrus sulphuratus ruber*, Ph. Lond. Red sulphurated quicksilver. (*Cinnabaris factitia*. Factitious Cinnabar). Prepared by combining quicksilver with melted sulphur, and afterwards subjecting the compound to sublimation. By this process the quicksilver is more closely united with the sulphur, than it is in the preceding preparation. It was formerly prescribed in doses of from five to fifteen or twenty grains, as an alterative, in cutaneous

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diseases,

diseases, gouty affections, &c. and not many years since it was cried up as a remedy against the hydrophobia. But to these recommendations the enlightened practitioner gives no degree of credit; and as little faith has he in its external use as a fumigation in venereal ulcerations of the throat. It is in fact, like all the sulphurated compounds of quicksilver, a very uncertain preparation, and should be cleared away from the apothecaries shelves. What is here said of the factitious, may be equally applied to the *native cinnabar*, which is still less fit for medicinal use, on account of other mineral substances with which it is accidentally mixed.

(5) By the salification of quicksilver, we mean the combination of it with acids, so as to form either perfect salts, or compounds partaking of the properties of salts.

(a) *Hydrargyrum nitratus*. Nitrated quicksilver. Prepared by dissolving quicksilver in the nitrous acid. This preparation is employed for making the *Unguentum Hydrargyri nitrati*, Ph. Lond. & Ed. Ointment of nitrated quicksilver. (*Unguentum citrinum*. Yellow Ointment). Hog's lard, first melted and then exposed to the air till it begins to grow stiff, is mixed with the nitrous solution above described

described whilst the solution is yet hot, so as to form an ointment. It is applied, in very small quantities, to pimples and scabs.

(b) *Hydrargyrus muriatus*, Ph. Lond. Muriated Quicksilver. *Hydrargyrus muriatus corrosivus*, Ph. Ed. Corrosive muriated Quicksilver. (*Mercurius corrosivus sublimatus*. Corrosive sublimate of mercury). Consists of quicksilver combined with the muriatic acid, by sublimation. This is a very useful preparation of quicksilver; but, being a strong poison, can only be given in very minute doses, such as an eighth or a quarter of a grain. In this way, three quarters of a grain, or a whole grain, may be administered in the course of twenty-four hours; a greater quantity disorders the stomach and bowels.

Muriated quicksilver arrests the progress of the venereal disease more quickly than any other preparation of quicksilver, without affecting the salivary glands. Hence where the symptoms are very urgent, it is preferable to every other mercurial. It has also this further advantage, that it is not necessary for the patient to be under much restraint during its use. These are strong recommendations. But, on the other hand, if its effects soon take place, they likewise soon cease. Hence the disease

frequently re-appears after discontinuing its use ; so that although it be the most convenient, it is not always the surest remedy against the venereal disease.

There are two modes of prescribing muriated quicksilver, viz. either in solution or in pills. *Van Swieten's* celebrated solution is prepared by dissolving the mercurial salt in proof spirit or brandy. Every ounce of the solution contains half a grain of muriated quicksilver ; so that if a table spoonful (i. e. half an ounce) be given at a time, the patient will take a quarter of a grain for a dose, which may be repeated night and morning. After each dose, the patient should dilute largely with some mucilaginous liquor, such as gruel, mallow-tea, or decoction of sarsaparilla. Of this solution it may be remarked, that it will in general be more convenient to have it made with a double quantity of spirit, as the mercurial salt may then be given in more divided doses, viz. only the eighth part of a grain at a time. The sensible operation of this medicine is by urine. Where it occasions sickness, griping, or purging, the dose must be diminished, and a little opium joined with it. Where there is any tendency to spitting of blood, its use is improper.

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As the *spirituous solution* of this mercurial salt is very nauseous, the *aqueous solution* is now generally preferred. It is made with distilled water alone, or with distilled water in which some sal ammoniac has been previously dissolved. By being impregnated with the ammoniacal salt, the water dissolves the muriated quicksilver more completely. In either of these ways, a solution may be prepared in any given proportion. The most convenient is, one grain of the muriated quicksilver to four ounces of water. Of this one table spoonful (i. e. the eighth part of a grain) is an ordinary dose.

If the form of pills be preferred, dissolve six grains of muriated quicksilver, and an equal quantity of sal ammoniac in sixty drops of distilled water, add as much crum of bread or biscuit powder as will make the whole into a paste of a proper consistence, and divide into forty-eight pills. As each pill contains the eighth part of a grain, the doses may be regulated with great exactness. *Jacobi Methodus mercurium sublimatum corrosivum tutius copiosiusque exhibendi, 1778.*

Muriated quicksilver is given in either of the ways above described, not only in syphilis, but in a great variety of other disorders, and particularly in cutaneous diseases, old ulcers, scrophulous and

cancerous sores (*Whytt. Gooch*) chronic rheumatism, arthritis, &c. It is applied topically, as a collyrium, in venereal ophthalmies; as a gargle, in venereal sore throats; as an injection in gonorrhœa; as a wash and bath in the itch and other cutaneous diseases; and lastly, as a clyster, in cases where the stomach is too irritable to bear it. (*Von Horne*).

The *aqua ophthalmica mercurialis* of the foreign dispensatories, consists of one grain of muriated quicksilver, dissolved in from four to six ounces of distilled water.

¶ The *Aqua Phagadænica* of the old pharmacopœias, was made by adding half a dram of this mercurial salt to a pint of lime water. In this preparation, greatest part of the muriated quicksilver is decomposed. It is a bad composition, and is deservedly thrown out of the late improved pharmacopœias. It is still employed abroad as a wash for foul ulcers, whether venereal or not; but the purposes for which it is designed, may in all cases be more effectually accomplished by a weak solution of muriated quicksilver in distilled water.

For further observations on the employment of muriated quicksilver, the reader is referred to the works of *Turner, Van Swieten, Pringle, John Hunter,* and

and Bell; to Storck's *Annus medicus fecundus*, Locher's *Observationes practicæ*, 1762, Buchner de mercurii sublimati corrosivi usu medico interno, 1758. Le Beque de *Presle* de l'usage interne du mercure sublimé corrosif, 1764; and, lastly, to Gardane's *Recherches pratiques*, &c. 1770.

¶ (c) *Hydrargyrus muriatus mitis*, Ph. Lond. Mild muriated Quicksilver. *Hydrargyrus muriatus præcipitatus*, Ed. Ph. Precipitated muriated Quicksilver. (*Mercurius præcipitatus dulcis*). This is prepared by adding to a nitrous solution of quicksilver, a strong solution of sea salt in distilled water. The precipitate thus obtained, is quicksilver combined with the muriatic acid. It is washed with water till it is deprived of all taste. This mercurial preparation is given in doses of one or two grains once or twice in a day. It is found to vary in strength as it comes from the hands of different chemists. The preparation which immediately follows, is more to be relied upon; and as it possesses the same properties, and answers the same purposes, it renders the *hydrargyrus muriatus præcipitatus* totally superfluous.

(d) *Calomelas*, Ph. Lond. Calomel. *Hydrargyrus muriatus mitis*, Ph. Ed. Mild muriated Quicksilver. (*Mercurius dulcis*. *Mercurius dulcis*
K 4 sublimatus.

sublimatus. *Aquila alba.* *Panacea Mercurialis.* Sweet Mercury. Sweet sublimate of Mercury). Obtained by triturating pure quicksilver with muriated quicksilver, and afterwards subjecting the mass (each time rubbed to a powder) to three or four sublimations. After the last sublimation, the London College directs the product to be washed with hot distilled water. This is of a middle nature, between a calx and a salt. It is by far the most useful of all the mercurial preparations, and with it alone many practitioners rest contented. We will not go so far as to say that, whoever is provided with this may dispense with all the rest; but we may venture to assert, that the long list of mercurials might, with as much safety to the sick as convenience to the physician, be reduced to three preparations, viz. triturated quicksilver, muriated quicksilver, and calomel.

As a sialagogue, calomel is given in doses of half a grain or a grain twice or thrice a day. The best mode of prescribing it is in pills. As it is apt to pass off readily by the bowels, it is commonly necessary to join a small quantity of opium with it.

During the use of calomel, and indeed of all the saline preparations of quicksilver, the patient should abstain from acids and all acedent food. It is scarcely necessary to add, that cold should at all

all times be guarded against, during a mercurial course; and that the diet should be mild, but nourishing, consisting almost entirely of milk and farinaceous and mucilaginous matters.

The other diseases, besides syphilis, in which calomel is eminently useful, are (1) glandular and visceral obstructions, such as scrophulous and scirrhus tumors. induration of the liver, jaundice, &c. (2) certain convulsive disorders, such as epilepsy, tetanus, trismus, and hydrophobia; (3) dropical affections, such as ascites, hydrocephalus, and hydrops ovariorum; (4) certain cutaneous diseases, such as lepra, tinea, scabies; (5) certain painful complaints, such as odontalgia, chronic rheumatism, arthritis, &c. (6) certain local inflammations, such as hepatitis, scrophulous ophthalmia, &c. (7) certain fevers, such as small pox, dysentery, tertians, quartans, bilious remittent fevers, the yellow fever, &c. (8) and lastly, worms.

Various adjuncts are prescribed with it, according to the different nature of the disease. Thus, in scrophulous and cancerous complaints, it is generally joined with cicuta; in epilepsy and other convulsive affections, with camphor, opium, and other antispasmodics; in dropical disorders, with

squill and other diuretics ; in lepra and other cutaneous affections, with guaiacum ; in chronic rheumatism, with the peruvian bark ; in hepatitis and other inflammatory disorders, with antimonial powder ; and lastly, in worms, with aloes and other bitters. *Hoffman* de Mercurio Dulci, 1700. *Cammerarius* de Panacea mercuriali, 1700. *Alberti* de Mercurii dulcis usu, 1745. *Hildebrand* dulcis mercurii laudes, 1794.

In the preceding account of quicksilver, notice has been taken of all those preparations which are in most estimation and in general use. There are several, however, which we have purposely passed by, from a conviction that the catalogue is already too crowded without them. Such as wish to become acquainted with the names and compositions which have been here omitted, will find them in *Schwediaur's* Table of the Preparations of Mercury, in his Treatise on the Venereal Disease, 1794. See also *Baldinger* Historia Mercurii et Mercurialium Medica, 1781, 1785.

C. EXPECTORANTS

C. EXPECTORANTS.

(1) *From the Animal Kingdom.*

¶ *ONISCUS Asellus*, Ph. Lond. et Ed. The Woodlouse or Slater. (Millepeda). This insect was formerly prescribed in humoural asthmas; but is now deservedly out of repute either as an expectorant or as a diuretic. Dose, 20 or 40 grains.

Woodlice are prepared for medicinal use, by putting them into a thin canvas bag, and hanging them over the steams of spirit of wine, made hot, till they are killed and become friable.

(a) *Sal Cornu Cervi*, Ph. Lond. Salt of Hartshorn. Obtained by subjecting to distillation the horns of the stag. This salt is the ammonia or volatile alkali, with an admixture of empyreumatic oil. As it may be procured, and commonly is procured, from the horns and bones of other quadrupeds, there is a manifest impropriety in the old name retained by the London College. It should have had a generic appellation, such as has been bestowed upon it in the Edinburgh pharmacopœia, viz.

viz. *Ammonia ex Ossibus*, ammonia, or volatile alkali, from bones, to distinguish it from the volatile alkali prepared from sal ammoniac. Salt of hartshorn is given in some asthmatic cases, in doses of five, ten, or fifteen grains, either alone or joined with asafœtida. It is improper where there is any inflammatory affection of the lungs.

(b) *Liquor volatilis Cornu Cervi*, Ph. Lond. Volatile liquor of Hartshorn. *Aqua ammoniæ ex ossibus*, Ph. Ed. Water of ammonia from bones. (*Spiritus Cornu Cervi*. Spirit of Hartshorn). Is obtained by distillation from the horns of the stag, or the horns and bones of other animals. It is sometimes given to promote expectoration in humoral and spasmodic asthmas, in doses of fifteen, thirty, or sixty drops, either alone or in conjunction with asafœtida. Like the salt, it is too stimulant to be had recourse to where there is much pneumonic inflammation.

¶ MEL. Honey. (See p. 45). Usually considered as an expectorant, but seldom serviceable, often hurtful, when prescribed as such. Sugar, and its preparations, may at all times supply its place. For *mel acetatum*, see Diaphoretics.

(2) *From*

(2) *From the Vegetable Kingdom.*

ALLIUM sativum. Hexandria. Monogynia. Liliaceæ. Sicily. (Radix). Garlick. Given raw, or boiled with milk or broth, in pituitous asthma and catarrh. (*Mead. Rosenstein*). The *Syrupus Allii* of the Swedish pharmacopœia, is made by steeping in a covered vessel, a pound of fresh garlick, bruised, in a quart of hot water, and afterwards adding a sufficient quantity of sugar to the strained liquor. It is given in doses of one or two drams.

Ammoniacum. Gummi-resina. Gum Ammoniacum. The plant which yields this gum resin, remains yet unknown. It is brought to us from the East Indies, and from Æthiopia, Egypt, and other parts of Africa.

This gum-resin is one of the most valuable expectorants in the whole materia medica. It is only surpassed by the squill in some cases, and by asafœtida in others.

It is prescribed in asthmas, in chronic catarrhs, in the hooping cough, peripneumonia notha, and
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in some stages of phthisis pulmonalis. It is given either in the form of a milky liquor, made by triturating it with water, or in pills. In the former mode it is frequently joined with oxymel of squill, with tartarised antimony, with camphorated tincture of opium, &c. In the latter, it is combined with the fresh or dried squill, with asafœtida, with myrrh, &c. Dose, ten grains to half a dram. The *lac ammoniaci*, Ph. Lond. (ammoniacum-milk) consists of two drams of ammoniacum triturated with half a pint of water. Dose, from half an ounce to an ounce and a half.

This gum-resin is an ingredient in the *Pilulæ scillæ*, Ph. Lond. et Ed. and in the *Emplastrum Ammoniaci cum Hydrargyro*, Ph. Lond. and *Emplastrum gummosum*, Ph. Ed.

In large doses ammoniacum purges; hence, when it is prescribed as an expectorant, it should be given in small quantities, frequently repeated. It is not proper where there is much inflammation, for then it irritates without unloading the lungs.

ARUM maculatum. Gynandria. Polyandria. According to *Linnæus* (the Son) and *Stokes* in *Withering*, it belongs to Monœcia Monandria. Piperitæ.

Piperitæ. Indigenous. (Radix). Wake Robin, or Cuckow Pint. The fresh root of this plant has been prescribed with advantage in humoural asthma. It may be given in doses of fifteen or twenty grains three times a day. It is generally combined with gum arabic or some other mucilage, which blunts and moderates its acrimony. When given in a solid form (*Thesaurus Medicaminum*, p. 33) the patient should dilute with decoction of barley or gruel. Perhaps the best mode of exhibiting it, is to triturate it, after the manner of *Lewis* (*Dispensatory*, p. 608, fourth edition) with gum-arabic and water, so as to form an emulsion.

The *conserva ari*, Ph. Lond. is made by beating up the fresh root with three times its weight of fine sugar. Dose, thirty grains to a dram. The *dried* root possesses little or no virtue.

¶ COLCHICUM *autumnale*. Hexandria. Trigynia. Liliaceæ. Indigenous. (Radix). Meadow Saffron. Has been given with good effect in humoural asthma. (*Storck*). The *Oxymel Colchici*, Ph. Lond. is made by steeping an ounce of the sliced root in a pint of vinegar, and afterwards adding to the liquor filtered and expressed from the root, two pounds of honey, and boiling the whole

to a proper thickness. Dose, one or two drams. The *Syrupus Colchici*, Ph. Ed. is made by macerating the root in vinegar, in the same proportions, and afterwards adding to the filtered liquor twenty-six ounces of sugar, and boiling it to the consistence of a syrup. It may be given in the same quantities as the oxymel. As the active particles of the colchicum are of a volatile nature, the boiling in both these preparations should, if possible, be avoided. They must always vary in strength according to the greater or less degree of coction. Is it owing to this circumstance, or to a variation of activity in the root, from a difference of soil and situation, that the results of the trials with it have been so different in different hands? That it naturally possesses great acrimony, we have incontestible proof; hence considerable caution is necessary in using it. At first, the dose may be a dram of the oxymel or syrup, taken in an ounce or two of some aromatic water, twice or thrice a day. After a little time, the quantity may be doubled, tripled, or quadruplicated, according to its effects. As the dose is increased, the intervals between the repetitions should be lengthened, as large doses have sometimes a very sedative effect. After all, from the experience we have had of it, we are induced to think it inferior, both as an expectorant and diuretic, to the squill, and therefore set it aside as superfluous.

Storck

Storck Libellus de Colchici autumnalis radice, 1763.
Ehrmann de Colchico autumnali, 1772, and afterwards reprinted in *Baldinger's Sylloge Opusculorum argumenti Medico-Practici*, Vol. V.

¶ *COPAIFERA officinalis*. Decandria. Monogynia. Dumosæ. Arbor. Brazil, and other parts of South America. (Balsamum copaiva). Balsam of Copaiva. The observations on the use of the *TOLUIFERA Balsamum*, as an expectorant, will apply here. We therefore refer to that article.

DIGITALIS purpurea. Didynamia. Angiospermia. Solanaceæ. Indigenous. (Folia) Fox-glove. Of late years this herb has been given with great success in humoural asthmas; and in some kinds and stages of phthisis pulmonalis; but, as its good effects in these cases may be referred to its action on the kidneys, we shall reserve what we have to say respecting its administration and doses, till we come to treat of Diuretics.

FERULA Asa fetida. Pentandria. Digynia. Umbellatæ. Persia. (Asa foetida. Gummi-resina). Asa foetida. The juice which flows from the wounded root, inspissated and concreted by the heat of the sun. This gummy-resinous concrete is an excellent expectorant in asthmatic cases, and it has been prescribed with good effect in the hooping-

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cough

cough and croup. From ten to twenty or thirty grains are given for a dose, either in pills or triturated with water, so as to form a milky liquor. As asafœtida is a powerful stimulant, it is improper where there is any inflammatory affection. On account of its heating quality, it is often useful to join antimonials with it. This gum-resin is an ingredient in the *Pilulæ Galbani compositæ*, Ph. Lond. the *Pilulæ Asæ fœtidæ compositæ*, Ph. Ed. (formerly called *Pilulæ Gummosæ*) and the *Emplastrum asæ fœtidæ*, Ph. Ed. The other officinal preparations from this drug, are, the *Lac Asæ fœtidæ*, Ph. Lond. which is made in the same manner, and in the same proportions as the ammoniacum-milk ; dose, half an ounce or an ounce ; the *Tinctura asæ fœtidæ*, Ph. Lond. et Ed. of which one or two drams are given for a dose ; and the *Spiritus Ammonię fœtidus*, Ph. Lond. et Ed. of which from fifteen to fifty drops may be given at once. The tincture and spirit are chiefly used as Antispasmodics.

GLYCYRRHIZA *glabra*. Liquorice. See Demulcents.

LICHEN *Islandicus*. Iceland, or Eryngo-leaved Liverwort. See Demulcents and Tonics.

¶ MENTHA *Pulegium*. Didynamia. Gymnospermia. Verticillatæ. Indigenous. (Pulegium.
um.

um. Herba). Pennyroyal. The juice of this herb, and the infusion of it, were formerly in high repute in this country, as a remedy in the whooping-cough and asthma; but, as an expectorant, the pulegium is now justly despised by every judicious practitioner. Our pharmacopœias have still an *Aqua* and a *Spiritus Pulegii*.

MYRRHA. (Gummi-resina). Myrrh. It is not yet known from what vegetable this gummy-resinous substance is obtained. We receive it from Arabia Felix, and Abyssinia.

Myrrh is no contemptible expectorant in humoral asthmas, chronic pituitous catarrhs, and certain species and degrees of phthisis pulmonalis, where there is more of debility than of active inflammation. If in consequence of having been prescribed indiscriminately in all cases and in all stages of phthisis, it has often aggravated, instead of mitigating the disease; we are not, for this reason, to expel it, as *Cullen* and *Fothergill* have done, from among the medicines of this order. We readily admit, that, on account of its stimulant and heating effects, it is improper where there is much pulmonic inflammation and high degree of hectic fever; but, where the opposite conditions are observed, where

the inflammatory stage is passed, and the suppurative stage is entered upon, there myrrh and some of its preparations may frequently be employed with advantage. *Griffith. Simmons. Saunders. Fritze in Murray, Vol. VI.*

Much depends upon the mode in which this drug is exhibited. *Murray* has very properly censured the practice of combining it with spermaceti as adopted at Guy's Hospital. Such an addition renders it unpleasant to the palate and oppressive to the stomach, and is in no respect suited to favour or promote the operation of the myrrh. In like manner, *Griffith's* mode of joining it with vitriolated iron and an alkaline salt, is, as *Dr. Donald Monro* has remarked (*Thesaurus Medicaminum*, p. 240) not without fault. When we give it in a liquid form, we generally direct it to be triturated with an alkaline salt, or else with a neutral salt, such as vitriolated kali, and a sufficient quantity of infusion of mint and chamomile; and if we judge it right to employ a chalybeate at the same time, we prescribe the rubigo ferri, made into pills with rhubarb powder and a little extract of cicuta. In this way we avoid disgusting the patient with an unsightly and nauseous mixture, such as *Griffith's*; and, what is of more consequence, we avoid putting together "substances" (viz. prepared kali and vitriolated iron which

which, on account of their chemical action upon each other, have their qualities mutually altered, and consequently render the operation and doses of each undeterminable.

Another mode of exhibiting myrrh deserves to be noticed ; we mean *Fritze's* combination of it, as mentioned by *Murray*, with the decoction of the lichen islandicus. It should be remarked, however, that this practitioner uses not the common myrrh, but the watery extract, which we shall afterwards describe.

The dose of myrrh is from ten grains to half a dram or two scruples.

When myrrh is given in powder, after *Hoffman's* manner (*Thesaurus Medicaminum*, p. 24 and 25) the patient should assist its operation by free dilution with decoction of liquorice root or decoction of barley.

When given as an expectorant, in the form of pills, it is customary to join with it ammoniacum, squill, extract of liquorice, or soap.

The *Pulvis Myrrhæ compositus*, Ph. Lond. consists of myrrh, safin, rue, and castor. It is not

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used

used as an expectorant, but only as an emmenagogue. The same use is made of the *Pulvis Aloës cum Ferro*, which consists of aloes, myrrh, extract of gentian, and vitriolated iron. Myrrh is a principal ingredient in the following preparations, viz. the *Pilulæ Aloës cum Myrrha*, Ph. Lond. et Ed. *Pilulæ Aloeticæ*, Ph. Ed. *Pilulæ Galbani compositæ*, Ph. Lond. *Pilulæ Asæ fætidiæ compositæ*, Ph. Ed. *Tinctura Myrrhæ*, Ph. Lond. et Ed. *Tinctura Aloës composita*, Ph. Lond. (formerly called Elixir Aloës) *Tinctura Aloës cum Myrrha*, Ph. Ed. (formerly Elixir Proprietatis) and *Tinctura Aloës vitriolata*, Ph. Ed. (formerly Elixir Proprietatis vitriolicum). Of all these preparations, the uses and doses will be found under Cathartics and Emmenagogues.

The *Extractum Myrrhæ aquosum* (Watery extract of myrrh) of the foreign pharmacopœias, is made by dissolving myrrh in water, and evaporating the solution to the consistence of an extract. (*The-saurus Medicaminum*, p. 27). This extract, being chiefly the gum without the resin, is found to be less heating than the natural drug, and on this account is preferred by some practitioners in phthi-sical and hectic cases. It may be given in doses of a scruple or half a dram.

NICOTIANA

NICOTIANA *Tabacum*. (See page 111). Tobacco. When tobacco is used as an expectorant, it should be deprived of its saline matter, and more especially of its volatile acrimonious oil, otherwise it proves too irritating for many pulmonary diseases. It is deprived of these irritating particles in the preparation of the *Extractum Nicotianæ* of the foreign pharmacopœias. This is made by macerating the dried leaves for a night in six times their weight of water, and turning them out the next morning upon a sieve, that the water may drain from them. The leaves, thus washed and macerated, are then boiled very briskly in ten times their weight of pure water, till half is evaporated, when the decoction is strained. (The clarification with the white of egg is an unnecessary trouble). Lastly, this decoction is afterwards inspissated to the consistence of an extract; which has been given with good effect in pituitous asthmas, chronic catarrhs, and in some cases of phthisis. (*Schulz, Rosenstein, Cullen*). Dose, from one to three or four grains.

PIMPINELLA *Anisum*. Pentandria. Digynia. Umbellatæ. Syria. Egypt. (*Anisum. Semen*). Aniseed. Frequently used as an expectorant in asthmatic affections. For this purpose, a strong infusion of the seeds, or the essential oil, are given;

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of the latter preparation, viz. the *Oleum essentielle Anisi*, Ph. Lond. et Ed. the dose is from two to six drops. The *Spiritus anisi compositus*, Ph. Lond. is chiefly used as a carminative. See Stimulants and Antispasmodics. The essential oil is an ingredient in the *Tinctura Opii Camphorata*, Ph. Lond. and *Tinctura Opii Ammoniata*, Ph. Ed. See Narcotics.

POLYGALA *Senega*. Diadelphia. Octandria. Lomentaceæ. Virginia, Pennsylvania, Maryland, and other parts of North America. (*Seneka*. Radix). *Seneka*, or Rattle-snake Root. This root is frequently employed with advantage in pleurifies, peripneumonies and humoural asthmas. In the two first disorders, it is scarcely necessary to remark, that it should not be administered until the inflammation has been removed, or greatly abated by venesection and other means. (*Bouvard, Tennent, Percivall*). The best mode of prescribing it is in decoction. In the *Decoctum Senekæ*, Ph. Ed. the proportions are one ounce of the root to two pints of water, boiled down to sixteen ounces. Of this, an ounce or an ounce and a half may be given every second or third hour. It commonly operates both by expectoration and urine. When it purges, the dose should be diminished; and if, notwithstanding, it should continue to pass off too readily by the bowels, it should
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be discontinued. Where there is much febrile affection, an antimonial, such as the *vinum antimonii*, may be advantageously joined with it; but in very small quantity, as the decoction itself in some constitutions produces nausea and sickness; which, however, may generally be prevented by the addition of cinnamon water, and a little syrup of the white poppy. We have occasionally ordered camphor with it, and have thought that its expectorating operation has been promoted, and its purgative tendency checked by it. *Linnaeus* de Radice Senegæ in *Amœnitat. Acad. Vol. II.* *Detbarding* de Seneca, 1749. For further remarks on this root, see Diuretics and Diaphoretics.

SCILLA maritima. Hexandria. Monogynia. Liliacæ. Portugal, Spain, Italy. (Radix). Squill. The bulbous root of this plant is one of the most useful expectorants in the *materia medica*; yet it often fails in the hands of ordinary practitioners, from one or other of the following causes, viz. First, owing to some improper condition of the patient; secondly, owing to a depravation of the drug by long keeping or pharmaceutical treatment; and, thirdly, owing to the neglect of combining it with suitable auxiliaries. As to the first of these circumstances, viz. the particular condition of the patient, it is a matter of more moment than is commonly

commonly apprehended. The squill root possesses great acrimony, and stimulates powerfully; so that where there is much febrile or inflammatory affection, or great irritability, it only renders the cough more frequent, and oppresses instead of unloading the lungs. In pleuritic, peripneumonic, and catarrhal cases, when given under the forbidding conditions just mentioned, we have known it to exasperate the fever, and bring on strangury and spitting of blood. Essentially necessary, therefore, is it to the successful operation of this medicine, that inflammation and fever be for the most part subdued previously to its exhibition; and if great irritability prevail, that such other substances be employed in conjunction with it, as are suited to lessen or remove that unfavourable state of the patient. The first is to be effected by venesection, antimonials, and other evacuants; and to accomplish the latter, camphor and opium may be employed. By due attention to these precautions, the squill root may be administered with the best success in the cases above mentioned, provided it be assisted by plentiful dilution with mucilaginous liquors, a point not sufficiently attended to in ordinary practice,

Squill is not only useful in certain stages and conditions of pleurisy, peripneumony, and catarrh,
but

but also in a great variety of other pulmonic diseases, and especially asthma and hooping-cough.

A second cause of the failure of this drug in many hands, is its depravation by long keeping or by pharmaceutical treatment.

Without great care, the raw root becomes musty or putrid by long keeping, and when in that state it is evident it must be quite unfit for medicinal use. On the other hand, if the exsiccation be not conducted slowly and with a gentle heat, or, if roots which have been injured in being brought from abroad, or spoiled by being kept in an improper situation, happen to be made use of, then the dried drug will be bad. Thus it is (either from applying too great a degree of heat in the drying, or from the badness of the roots before the drying) that the dried squill often disappoints the prescriber. Yet, when good roots are selected, and the exsiccation is conducted with caution, the dried is, for all medical purposes, far preferable to the raw drug. In like manner, the squill is often impaired by too much heat in the boiling of the oxymel. This circumstance, added to the tendency which this honied preparation has to ferment in warm weather, accounts for the uncertainty of operation which

we have sometimes observed in the use of the oxymel scillæ.

A third cause of failure in the exhibition of squill, is a neglect to combine it with suitable auxiliaries. Thus, where there is any febrile affection, it seldom succeeds unless neutral salts are added to it, and copious dilution with mucilaginous liquors is enjoined. Our method, in these cases, is to direct the dried squill to be triturated to a powder with nitre or vitriolated kali, and to be taken in a large draught of decoction of barley. We have already hinted at other additions to it, such as camphor and opium, where instead of inflammation, there is great irritability. On the other hand, in asthmas attended with corpulency and a cachectic condition, mercurials are added with advantage. In these cases, triturated quicksilver is commonly employed; but of all the mercurial preparations we have found calomel in small quantities to promote most effectually the operation of the squill. For this purpose we give half a grain of calomel and two grains of dried squill, with three grains of aromatic powder, made into two pills, twice, or, if the symptoms are urgent, thrice in the space of twelve or fourteen hours.—Were squill a medicine seldom called for, we should not have dwelt
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so long upon it ; but being in such general use, it appeared to us to be a matter of considerable moment, to impress upon the minds of young practitioners the preceding precautions, on the observance of which its successful exhibition in a great measure depends.

The *fresh* or *raw* root, is given in doses of five to fifteen grains ; the *dried* root in doses of one to five grains.

In our pharmacopœias, we have the following preparations of this root, viz. the *Conserva Scillæ*, Ph. Lond. which consists of one part of the fresh root and five parts of fine sugar. Dose, half a dram. *Pilulæ Scillæ*, Ph. Lond. which consist of one part of the dried root, ginger and soap, each, three parts, ammoniacum two parts, beat up with syrup of ginger. The *Pilulæ Scilliticæ*, Ph. Ed. are composed of dried squill one part, gum ammoniacum, lesser cardamom-seeds, and extract of liquorice, each, three parts, beat up with simple syrup. The pills of either pharmacopœia, may be given in doses of five to fifteen grains. The *Acetum Scillæ*, Ph. Lond. is made by macerating for twenty-four hours, with a gentle heat, one pound of dried squill with six pints of vinegar, and afterwards adding to the expressed liquor half a pint of spirit of wine. Half a
dram

dram or a dram is a common dose. It is considerably stronger than the *Acetum Scillæ*, Ph. Ed. which is made by macerating for eight days, two ounces of the dried root in two pints and a half of distilled vinegar, and afterwards adding to the expressed liquor three ounces of rectified spirit of wine. One or two drams may be given for a dose.

¶ The *Mel Scillæ*, Ph. Lond. is made by boiling three parts honey and two parts tincture of squill, to the consistence of a syrup. Dose, a dram. This preparation may well be dispensed with. The *Oxymel Scillæ*, Ph. Lond. is prepared by boiling three parts honey with two parts vinegar of squill. Dose, from one to two drams. Of the honied preparations of this and other drugs, it may be remarked, that as they are very liable to spoil by long keeping, and, in respect of efficacy, have no advantage whatever over the saccharine compositions, we are surprised to see so much partiality for them among our countrymen. Honey, so far from favouring, frequently thwarts the operation of the squill, in consequence of its heating and irritating effects. Howsoever highly it might formerly be esteemed as a pectoral, when its nature and action were not properly understood, honey has now justly fallen into disuse in pulmonic diseases, among the more discerning part of the medical profession. See p. 140.
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We therefore think that the Edinburgh College have acted judiciously in rejecting all the old honied preparations, and in substituting saccharine preparations or syrups in their stead. Accordingly, in the Edinburgh pharmacopœia, we have no mel scillæ, no oxymel scillæ, but in their place a *Syrupus Scillæ*, which is made by dissolving with a gentle heat three pounds and a half of fine sugar in two pounds of vinegar of squill. One or two drams of this may be given for a dose. The last preparation of this drug which remains to be noticed, is the *Tinctura Scillæ*, Ph. Lond. an elegant and efficacious composition. It is made by digesting four ounces of the dried root in two pints of spirit of wine. Dose, from thirty to sixty drops. It is more used as a diuretic than as an expectorant. See Diuretics. *Wagner de Scilla in Haller's Dissertat. Pract. Tom. 2. Schulze ibidem. Caspari de Scillâ, 1785. For various expectorating formulæ with squill, see The-saurus Medicaminum, p. 24 to 36.*

SOLANUM Dulcamara. Woody Night Shade. Bitter-sweet. See Diuretics.

STYRAX Benzoe. Decandria. Monogynia. Oleraceæ. Arbor. In the island of Sumatra, and other parts of the East Indies. (Benzoe. Benzoinum. Assa dulcis. Resina). Benzoin or Benjamin. The resin itself, in the state in which we receive it from abroad, is seldom employed internally ; but
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the saline particles, separated from the resin by sublimation, and commonly known under the name of *Flores Benzoës*, Ph. Lond. (the *Acidum Benzoinicum* of the Edinburgh pharmacopœia) are frequently prescribed in asthmatic and other pulmonic affections. This essential salt (or flowers) of benzoin, may be given in doses of five to fifteen grains. In large doses it stimulates considerably, and generally does more harm than good where there is inflammation or great irritability. It seems to act rather as an antispasmodic than as an expectorant. Its place, in most instances, may be better supplied by camphor. See Antispasmodics.

The resin is an ingredient in the *Tinctura Benzoës composita*, Ph. Lond. et Ed. (formerly called *Balsamum traumaticum*) which is chiefly used as an external application; and the essential salt or flowers enter into the *Tinctura Opii Camphorata*, Ph. Lond. and the *Tinctura Opii Ammoniata*, Ph. Ed. (formerly called *Elixir Paregoricum*) which are given in doses of a dram, in asthmatic affections, chronic catarrhs, and phthifical cases.

¶ *STYRAX officinalis*. Class and natural order, as the last. Æthiopia, Palestine, and Southern parts of Europe. (Resina.) Storax. This resinous substance was formerly in great repute as a pectoral, but is now very justly rejected as such. Dose, ten

ten or fifteen grains. It is an ingredient in the *Tinctura Benzoës composita*, Ph. Lond.

TOLUIFERA *Balsamum*. Decandria. Monogynia. Lomentaceæ. Arbor. In the province of Tolu, in South America. (*Balsamum toluatum*. *Liquor resinofus ex arbore fauciatâ stillans*). Balsam of Tolu. A resinous liquor flowing from the wounded tree. On account of its heating and stimulating properties, this, like all the other balsams, can seldom be used with propriety as an expectorant. If it is suited to any pulmonic diseases, it is to such as are unattended with fever and inflammation. From fifteen to thirty or forty drops, made into an emulsion with yolk of egg or gum arabic and water, may be given for a dose. The *Tinctura Balsami Tolutani*, Ph. Lond. and *Tinctura Tolutana*, Ph. Ed. are seldom used as expectorants. See Stimulants. The *Syrupus Tolutanus*, Ph. Lond. (formerly called *Syrupus Balsamicus*) is made by boiling eight ounces of the balsam in three pints of water, in a covered vessel, and afterwards adding to the filtrated liquor a sufficient quantity of sugar. This is a very unchemical preparation, as the water dissolves very little of the resin. It only takes up the odoriferous part. Hence it is obvious, that the syrup made in this manner is a very weak medicine. This censure is not ap-

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plicable

plicable to the *Syrupus Tolutanus* of the Edinburgh pharmacopœia, as that is prepared by mixing the tincture of balsam of tolu with common syrup (viz. one ounce of the tincture to two pints of syrup) and is consequently impregnated with all the properties of the resin. These syrups are given in doses of two drams or a tea spoonful.

TUSSILAGO *Farfara*. Coltsfoot. See Demulcents.

(3) *From the Mineral Kingdom.*

AER *vitalis*. (Aer empyræus. Aer purus. Aer dephlogisticatus. Gas oxygenium). Vital Air. Empyreal Air. Pure Air. Dephlogisticated Air. Oxygen Gas. This air may be procured, by means of a strong heat, from calcined quicksilver, nitre, manganese, and various other substances. For medical purposes, it is best obtained from the last mentioned substance, made red hot in iron tubes, connected with an apparatus invented and described by Mr. *Watt* (Description of a Pneumatic Apparatus, 1795; also Supplement containing a Description of a simplified Apparatus, and of a Portable Apparatus for preparing Factitious Airs, 1796).

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In humoural asthmas, this species of air has been employed with considerable advantage. As it has a very stimulating effect, it should be given at first in small quantities, largely diluted with common air. The dose may afterwards be gradually increased according to its effects. Thus we may go on from half a pint mixed with fifteen or twenty times its bulk of atmospheric air, and taken twice in twelve hours, to a quart or more, repeated in the same manner. See *Beddoes's Considerations on Factitious Airs*, Part I, II, and III, 1794, 1795, 1796.

AER inflammabilis martialis. (Gas inflammabile. Gas hydrogenium). Martial inflammable air. Inflammable gas. Hydrogen gas. Procured from water and heated iron. The benefit obtained in phthisis pulmonalis from the inhalation of this and other inflammable airs, has, in several cases related in the pamphlet above quoted, been very considerable. It eases the cough, moderates the hectic heat, and procures sleep. See *Narcotics*.

ÆTHER vitriolicus. (Æther vitrioli. Naphtha vitrioli). Vitriolic Æther. The vapour of vitriolic æther (whether pure or impregnated with cicuta) drawn into the lungs three or four times in a day, has been found serviceable in catarrhal and phthi-

fical cases. At each inhalation, one, two, or three tea spoonfuls are used. The æther is impregnated with cicuta, by macerating the leaves in it, as mentioned under Narcotics. *Pearson* on different Kinds of Airs, 1795; also in *Beddoes' Considerat.* Part III. 1796.

ANTIMONIUM. (Stibium). Antimony. For general observations on this metallic substance, see Diaphoretics. In this place it is proper to take notice of two preparations of it, viz. (1) *Sulphur Antimonii præcipitatum*, Ph. Lond. et Ed. (formerly called *Sulphur auratum antimonii*) which is made by boiling crude antimony, reduced to powder, in a strong ley of pure kali, and then gradually dropping into the strained liquor as much diluted vitriolic acid as is sufficient for precipitating the sulphurated metal, which is afterwards washed with hot water. The alkaline salt uniting, during the boiling, with the crude antimony, forms with it a hepar, which is dissolved in the water employed in the decoction, but is decomposed on the addition of the vitriolic acid, which seizes the kali, whereupon the sulphur that was previously contained in the crude antimony, ceases to be soluble in the water, and accordingly falls down to the bottom along with some of the metallic particles. This preparation differs from crude antimony, in

as much as the metal is here not united with the sulphur in a reguline state, but in the state of an imperfect calx. Precipitated sulphur of antimony is given in asthmatic and catarrhal cases to promote expectoration, in doses of one, two, or three grains. In larger quantities, it causes sickness and vomiting. It is an uncertain preparation; and perhaps its place may at all times be better supplied by tartarised antimony. (2) ¶ *KERMES minerale*. (Pulvis Carthusianorum. Panacea Glauberiana). Mineral Kermes. The Carthusian Powder. This preparation is not very different from the preceding. It is made by boiling crude antimony reduced to powder, in a strong alkaline ley, filtrating the liquor and letting it stand at rest, in a cool place, to deposit. The sediment which is let fall, is the kermes mineral, of which the doses and uses are the same as those of the precipitated sulphur of antimony. It has a place in the Swedish, Danish, and Austrian dispensatories; but is very properly excluded from our pharmacopœias as a superfluous preparation.

ANTIMONIUM *Tartarifatum*, Ph. Lond. et Ed.
 (Tartarus emeticus. Tartarus stibiatus. Tartarus antimonialis. Stibium tartarifatum). Tartarised antimony. Emetic tartar. Stibiated tartar. Antimonial tartar. This metallic salt consists

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sists of calx of antimony and acid of tartar. It is prepared in various ways. According to the London pharmacopœia, it is made by boiling pulverized crocus of antimony (i. e. calx of antimony) in water saturated with crystals of tartar, and afterwards setting by the filtrated solution to crystallize : or, according to the Edinburgh pharmacopœia, by adding muriated antimony to a solution of alkaline salt in hot water, whereupon the muriated antimony is decomposed, and the metallic calx falls to the bottom, and is afterwards washed and dried. This calx is afterwards boiled in a large quantity of water, with crystals of tartar, till both are dissolved, when the solution is filtered, evaporated till a pellicle is formed, and then set by to crystallize.

In whichever of these ways the tartarised antimony is made, it is a preparation which, in small doses (viz. a sixteenth, an eighth, or a quarter of a grain) operates powerfully as an expectorant in pulmonic disorders accompanied with inflammation, such as pleurisy, peripneumony, and catarrh. It is also of great service in the whooping cough and croup, and in some kinds of asthmas. It may be given, in a liquid form, in conjunction with camphor, ammoniacum, or asafoetida.

¶ ASPHALTUM. (Bitumen Judaicum). Jews Pitch. This bituminous substance has been given by some practitioners, in doses of ten or fifteen grains, triturated with sugar, in some pulmonic disorders; but this practice is, in our opinion, not very commendable. The empyreumatic oil, *Oleum asphalti*, obtained by distilling the asphaltum by itself, is a medicine of more note; though we will not assert that, as an expectorant, it is of more efficacy. On account of its stimulant and heating qualities, it certainly cannot be proper in inflammatory affections of the lungs; and notwithstanding all that has been said in favour of it in phthisis pulmonalis by *Courcelles* (*Acta Societatis Med. Hafniensis*, Vol. II.) *Healde* (on the use of *oleum asphalti* in ulcers of the intestines, lungs, &c. 1769) *Lentin* (*Memorabilia circa morbos Claufthalensium*, 1779) and others, we have never yet been induced to prescribe it in consumptive cases, from a persuasion that it coincides in its general qualities with the tolu and other balsams. Yet, that we may not appear to under-rate the value of this article too much, we shall here insert the observations which Dr. *Bang*, of Copenhagen, has made upon it (*Praxis Medica*, 1789). The *oleum asphalti*, says this author, is perhaps entitled to the first place among the proper antiphthisical remedies. In some instances it answered very well (*quibusdam sufficien-*

tem opem præstitit) in others it afforded relief. It corrects the bad smell of the sputum, and seems to promote its discharge from the lungs; but it does no good where the voice is thick or hoarse, with (much) fever, hæmoptysis, or a disposition thereto; nor, in the last stage of the disease. Six or eight drops may be given night and morning in cold water. It shews its effects in a few days, when, if its operation is favourable, it may be continued for a length of time; if not, it should be laid aside, as it would be of no use to go on with it longer. Other practitioners give this medicine in larger doses, viz. ten or fifteen drops upon a lump of sugar, or mixed up with a mucilage.

HYDRARGYRUS. (See p. 116). Quicksilver. Some of the preparations of this metal, such as the *Pilule Hydrargyri* (p. 118) and *Calomel* (p. 135) are given with good effect to promote expectoration in asthmatic cases, either alone or in conjunction with ammoniacum, squill, &c. It is proper to notice, that when quicksilver is employed as an expectorant, it should be in small doses, viz. about five grains of the triturated preparation, and half a grain of the mild muriated mercurial salt, or calomel.

SULPHUR. Brimstone. Sulphur. This mineral substance is sometimes prescribed with advantage

tage in chronic affections of the chest, particularly asthmas. (*Willis. Hoffman. Werlhof.*) In its crude or native state it is not fit for internal use, on account of the extraneous matters that are mixed with it; hence, for medical purposes, it is purified by sublimation, which frees it from its earthy and metallic admixtures; and by subsequent ablution with water, which separates any loose vitriolic acid that may adhere to it. In this state of depuration it goes under the name of *Flores Sulphuris loti*, Ph. Lond. et Ed. (Washed Flowers of Brimstone). Of these the dose as an expectorant is fifteen or thirty grains.

¶ The *Sulphur præcipitatum*, Ph. L. (formerly called *Lac sulphuris*, Milk of Sulphur) is obtained by dissolving sulphurated kali in boiling water, and adding to the filtrated solution as much diluted vitriolic acid as is necessary for precipitating all the sulphur, which is afterwards washed repeatedly till it is deprived of all taste. In this process, the vitriolic acid seizes the alkali which rendered the sulphur soluble in the water, whereupon the latter falls down to the bottom in the form of a fine powder, which may be considered as pure sulphur, and consequently similar in its qualities and operation to sulphur purified by sublimation, i. e. the flowers of sulphur. It is used in asthmatic cases,
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in the same manner and in the same doses. It is a superfluous preparation.

In the above-mentioned disorders of the lungs, sulphur is not only given in its simple state, but also in combination with alkaline salts. This combination is effected according to the directions of the London College, by melting one part flowers of sulphur with five parts alkaline salt. This is the *Kali Sulphuratum*, Ph. Lond. (Sulphurated Kali) which commonly goes under the name of *Hepar sulphuris* (Liver of Sulphur). In some of the foreign dispensatories, the sulphur is directed to be melted with an equal portion of the alkaline salt. This preparation of sulphur may be given in doses of three or five grains. In larger quantities it occasions sickness and vomiting.

Oleum sulphuratum, Ph. L. et Ed. Sulphurated Oil. (Formerly called *Balsamum Sulphuris*. Balsam of Sulphur). This is made by boiling flowers of sulphur and olive oil together, with a gentle heat till they are perfectly incorporated. In the London pharmacopœia, the proportions are four parts sulphur to sixteen parts oil; in the Edinburgh, one part sulphur to eight parts oil. Dose, five to fifteen or twenty drops, in asthmatic cases.

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¶ The *Petroleum Sulphuratum*, Ph. L. (Formerly called *Balsamum Sulphuris Barbadiense*. Barbadoes Balsam of Sulphur). Sulphurated rock-oil, or sulphurated Barbadoes tar, is made by uniting by coction, in the same manner and in the same proportions as the last, petroleum and sulphur. It may be given in the same doses as the *oleum sulphuratum*, over which it possesses no advantages, and may therefore be dispensed with. The only other preparation of sulphur that remains to be noticed, is the *Unguentum Sulphuris*. Ph. L. et Ed. (Sulphur Ointment) for which see *Heteroclites* ; and for further observations on this article, see *Diaphoretics*.

D. EMETICS.

D. EMETICS.

(1) *From the Animal Kingdom.*

AMMONIA. (Alkali volatile). Volatile alkali. This is obtained in two ways, viz. either by distilling the bones of animals (see p. 140) or by mixing together one part sal ammoniac with two parts of chalk, and subjecting the mixture to sublimation. This is the *Ammonia præparata*, Prepared Ammonia, Ph. Lond. et Ed. (formerly called Sal volatilis falis ammoniaci, and Sal ammoniacus volatilis, Volatile Salt of Sal Ammoniac, Volatile Salt Ammoniac). Sal Ammoniac, to use the words of *Lewis*, is a neutral salt composed of volatile alkali (ammonia) and marine acid. In this process, the acid is absorbed by the chalk, and the volatile alkali is of course set at liberty. The only difference between the ammonia ex ossibus (ammonia from bones) and the ammonia e fale ammoniaco (ammonia from sal ammoniac) is, that the former contains a portion of empyreumatic oil, whereas the latter contains none. The latter is therefore the purest volatile alkali. As the alkaline basis of the sal ammoniac may generally be traced to an animal origin, it belongs properly to this

this division, though the sal ammoniac itself is ranked among the products of the mineral kingdom. The ammonia præparata is rarely used as an emetic; yet in gouty and paralytic cases it may sometimes be advantageously employed as such. For this purpose half a dram may be given at once, dissolved in gruel or chamomile-tea. If this quantity does not provoke vomiting within a proper time, it should be repeated once more, and be assisted by copious dilution. In the same cases, and with the same intention, may be given tea spoonful doses of the *aqua ammoniæ*, water of ammonia, Ph. Lond. et Ed. (formerly called Spiritus Salis ammoniaci, Spirit of Salt Ammoniac) which is made by distilling sal ammoniac with a strong ley of potash. In this process the potash unites with the marine acid of the sal ammoniac, and sets at liberty the volatile alkali, which dissolves in the water and comes over with it.

(2) *From the Vegetable Kingdom.*

ANTHEMIS nobilis. Syngenesia Polygamia superflua. Compositæ radiatæ. Indigenous (Chamæmelum. Flores) Chamomile. A strong infusion of the flowers is a well known emetic.

ASARUM

ASARUM Europæum. Afarabacca (see p. 110). Twenty grains of the dried leaves excite strong vomiting. According to *Mellin* (Mat. Med. 1789) ten grains of the dried root are equal to unloading the stomach sufficiently. Either the dried leaves or dried root might, as an emetic, supply the place of ipecacuanha. In the recent state, all the parts of this plant seem to be too acrimonious for internal use.

CENTAUREA benedicta. Syngenesia. Polygamia frustranea. Compositæ Capitatæ. Islands of the Archipelago, Spain, &c. (*Carduus benedictus.* Herba). Blessed Thistle. A strong infusion or decoction of this herb promotes vomiting, and may be employed for this purpose in the same manner as chamomile.

OLEA Europæa. Diandria. Monogynia. Sepiariæ. Arbor. Palæstine. Africa, and the Southern parts of Europe. (*Oliva.* Fructûs oleum expressum). Olive Oil. From two to four ounces of this oil, taken into the stomach, operate as an emetic, which has been usefully resorted to in cases of gall-stone and of metallic poisons. In the last cases, the dose may be doubled, and should be repeated two or three times.

PSYCHOTRIA

PSYCHOTRIA emetica. Pentandria. Monogynia. Stellatæ. Brazil, and other parts of South America. (*Ipecacuanha. Radix*). *Ipecacuanha*. The root of this plant is a well known safe and efficacious emetic. Its operation is neither so quick nor so long continued as that of tartarised antimony, nor does it pass off by stool so readily as that. On this last account, it is preferable in many cases, especially when there is no fever, to antimonial vomits; but in febrile and bilious cases, tartarised antimony is to be preferred. It is given in substance, and in aqueous and vinous infusion. Of the powder, the dose to adults, as a full emetic, is from ten to thirty grains; to children, four or five grains; to infants, one or two grains. The aqueous infusion, *Infusum Ipecacuanhæ*, is made by steeping one or two drams of the powdered root in six ounces of water. Two ounces of this infusion are given every half hour till it operates. This is a much weaker preparation than the vinous infusion, or *Vinum Ipecacuanhæ*, Ph. Lond. et Ed. which is made by macerating one part of the root in fifteen or sixteen parts of white wine. Dose, an ounce or an ounce and a half. A *Syrupus Ipecacuanhæ*, is used as an emetic for children, abroad. It is made (*Thesaurus Medicaminum*, p. 48) by adding a sufficient quantity of sugar to an aqueous infusion, about
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half as strong as that above mentioned, and is given in doses of half an ounce, more or less, according to the age of the patient. It is a common, and in many cases an useful practice, to add tartarised antimony to the powder and wine, and oxymel or vinegar of squill to the infusion of ipecacuanha. By these additions, its emetic operation is quickened, and a subsequent action is produced upon the intestines and kidneys.

This root and its preparations, are prescribed in various disorders with good effect, in small doses frequently repeated, so as to excite nausea, but not vomiting. Thus, in (1) *dysenteries*, four or five grains given every second or third hour, prove an excellent remedy, whether administered alone, or in combination with rhubarb or crystals of tartar. (*Piso. Helvetius. Degner. Baker* (who, however, prefers tartarised antimony) *Zimmerman. Clegborn. Pringle*. Some of these practitioners gave it in these cases in full doses); in (2) *asthmas, hooping cough*, and other pulmonic affections, two or three grains, taken in a morning, afford great relief (*Pye. Akenfide*); and in (3) *hæmorrhages* from the lungs and uterus, still smaller doses, such as a single grain, half a grain, or only a quarter of a grain, every second or third hour, have been employed with the best success. (*Dahlberg. Bergius*).

Besides

Besides its general use as an emetic and antispasmodic, ipecacuanha is advantageously employed, in combination with other drugs, as a sudorific in podagric, arthritic, and rheumatic cases, and also in typhus and other low fevers. The usual adjunct for this purpose is opium; with a neutral salt; formerly a favourite composition of *Dover's*; and for many years called after his name; but in the new editions of the London and Edinburgh pharmacopœias, entitled *Pulvis Ipecacuanhæ compositus*. It consists of one part ipecacuanha, one part opium, and eight parts vitriolated kali. Dose, from ten to twenty or thirty grains. This powder has been given not only in the diseases above-mentioned, but also in cases of diabetes, with great success. *Duncan's Comment.* Vol. IX. *Schulz* de Ipecacuanhâ, 1744. *Buchner* de Ipecacuanhâ, 1745. *Gianella* de admirabili radicis Ipecacuanhæ virtute in curandis febribus, in *Haller's* Dissertation. Pract. Tom V. *Linnaeus* de Ipecacuanhâ, 1774.

SCILLA maritima (see p. 153). Squill. As an emetic, this root and its preparations are rarely used by themselves; but the *Oxymel Scillæ* is frequently added, in doses of two or three drams, to the aqueous and vinous infusions of ipecacuanha, and to solutions of tartarised antimony, by which means their operation is quickened. When given

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alone, as much as an ounce of the oxymel will be required to produce full vomiting.

SINAPIS nigra. Tetradynamia. Siliquosæ. Indigenous. (Sinapi. Semen). Mustard. A tea-spoonful of flour of mustard mixed up with water, is a quick and efficacious emetic, which may be usefully employed in epileptic, paralytic, and some apoplectic cases. For more on this article, see Stimulants.

(3) *From the Mineral Kingdom.*

ANTIMONIUM tartarifatum (see p.165). Tartarised antimony. Emetic tartar. This is a most useful emetic, especially in bilious and febrile cases. It has advantages over ipecacuanha, in being quicker in its operation as an evacuant of the stomach, and in producing afterwards a greater effect upon the bowels, the kidneys, and the skin. One grain, or a grain and a half, is commonly a sufficient vomiting dose for an adult ; yet, in some instances, two or three grains are required ; and in maniacal disorders, as much as four or five. To children it is given in doses of a quarter or half a grain, according to the age. In all cases, the best mode of exhibiting it is in a state of solution. In this way
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the doses of it are easily regulated, and its operation is rendered quicker and more certain. Thus, if two grains are dissolved in eight ounces of water, and one ounce, or two table spoonfuls are given at a time, the patient will take a quarter of a grain for a dose, which may be repeated every ten minutes until it vomits. If instead of one ounce, twice that quantity, or four table spoonfuls are given, then the dose will be half a grain, which being repeated once, or at most twice, every quarter of an hour, will generally operate sufficiently. Besides its use by itself, tartarised antimony is often added to ipecacuanha to quicken its operation. The *Vinum Antimonii tartarificati*, Ph. Lond. is made by dissolving 40 grains of tartarised antimony in two ounces of hot water, and then adding eight ounces of mountain wine. Two drams of this wine contain one grain of the antimonial salt. The *Vinum Antimonii tartarificati*, Ph. Ed. is made by dissolving 24 grains of tartarised antimony in 12 ounces of mountain wine. It is therefore only half as strong as the preparation of the London college, viz. two drams of this wine contain only half a grain of the antimonial salt.

¶ The *Vinum Antimonii*, Ph. Lond. is a very uncertain preparation as to its strength, and may well be dispensed with. It is made by digesting

for the space of twelve days, an ounce of vitrified antimony (glass of antimony) reduced to powder in a pint and a half of mountain wine. Three or four drams generally operate as an emetic. For remarks on other antimonial preparations, see Expectorants and Diaphoretics.

AQUA tepida. Warm water. Where there is much predisposition to sickness, warm water alone, drunk to the quantity of a pint or more, proves a gentle, but sufficient, emetic.

CUPRUM vitriolatum. Vitriolated copper. (*Vitriolum cæruleum.* *Vitriolum cupri.* *Vitriolum veneris.* *Vitriolum cyprium.* Blue Vitriol. Vitriol of Copper). Consists of calx of copper and the vitriolic acid. From two to five grains produce full vomiting. It has been recommended by some practitioners as an emetic well suited to phthical cases; but, as such, it seems to have no advantage over vitriolated zinc, which is a much safer preparation. For further remarks on this metallic salt, see Tonics.

ZINCUM vitriolatum. Vitriolated Zinc. (*Vitriolum album.* *Vitriolum zinci.* White Vitriol. Vitriol of Zinc). Consists of calx of zinc and vitriolic

triolic acid. From ten to twenty or thirty grains of this metallic salt, dissolved in water, operate speedily and powerfully as a vomit, and hence it is employed in cases where narcotic and other poisons have been swallowed. In smaller doses, such as five grains, it is an useful emetic (as it evacuates the stomach without weakening it) in epilepsy, hysteria, asthma, phthisis, and intermittent fevers.

E. CATHARTICS.

UNDER the general term of Cathartics, we comprehend the different kinds of substances which increase or promote the alvine discharge, and which have been distinguished by systematic writers on the materia medica, by the various titles of *Purgatives*, *Laxatives*, *Solutives*, *Eccoprotics*, *Aperients*, *Deobstruents*, &c. All the substances which go under these different names, coincide in their general effect, and differ only in the degree of power with which they act, and according to the quantity in which they are given; whence purgatives in small doses are laxatives, and laxatives in large doses are purgatives. Such distinctions, therefore, can be of little or no utility, and accordingly we reject them.

(1) *From the Animal Kingdom.*

¶ *Fel Bovis.* *Fel Tauri inspissatum.* Ox's Gall. Of late years ox's gall evaporated by a gentle heat to the consistence of honey, has been given on the Continent, in doses of ten or twenty grains, in cases of costiveness, jaundice, chlorosis, and worms.

worms. It is made into pills with soap, extracts of bitter vegetables, rhubarb, ammoniacum, steel-filings, and in worm cases with jalap. At the same time that it increases the alvine discharge, it is said to strengthen the stomach, to promote digestion, and in every other respect to supply the deficiencies in the biliary secretion. This account of its virtues appears to us to be full of exaggeration. That it proves laxative when swallowed in considerable quantity, cannot be doubted; but we suspect that much of its reputed efficacy in jaundice and obstructions of the liver, is to be ascribed to the extracts of bitter vegetables, to the deobstruent gums (such as ammoniacum, galbanum, &c.) and to the steel-filings, with which, in these cases, it has always been combined; and certainly as an anthelmintic, it would cut but a poor figure without the help of jalap or calomel. On the whole, as long as aloes can be procured, ox's gall may well be dispensed with. *Hoffman* de Bile, medicinâ et veneno, 1704. *Schulze* de Bile medicinâ, 1775.

MEL (see p. 45) Honey. When taken freely, operates, like unrefined sugar, by stool and urine; but it is of a heating quality, and is apt to gripe. It is seldom used as a laxative in any other way than in clysters.

The officinal preparations in which honey is an ingredient, are the *mel scillæ* and *oxymel scillæ* (see p. 158) the *oxymel colchici* (see p. 143) the *mel rosæ* (see rosa) and the *mel acetatum* (formerly called *oxymel simplex*) which is made by boiling gently two parts honey with one part vinegar. Half an ounce of this, diluted with water, is aperient, diuretic, and sudorific. It is a common addition to gargles.

(2) *From the Vegetable Kingdom.*

ALOE perfoliata. Hexandria. Monogynia. Liaceæ. Asia, Africa, America, West Indies. (*Aloë barbadensis*, *hepatica*, *socotorina*. *Succus spissatus*. *Gummi-resina*). Aloes. Barbadoes or Hepatic Aloes. Socotorine Aloes. The inspissated juice, a gum-resin. This is a very useful warm, bitter cathartic, particularly suited to remove habitual costiveness from torpor or sluggishness of the intestinal canal, or from a deficiency in the biliary secretion. Hence it is prescribed with good effect in icteric, hypochondriacal, chlorotic, and cachectic cases; and it is frequently employed to bring away worms. Its emmenagogue powers will be noticed in another place. When taken freely, or for much length of time, it is apt to stimulate the intestines.

intestines too much, and to bring on the piles. On account of its irritating quality, it is an improper purge in pulmonic and hæmorrhoidal cases, in plethoric constitutions, in the advanced stage of pregnancy, and during a flow of the menses. To adults, the dose is from five to twenty grains. It is generally made into pills with bitter extracts, soap, ammoniacum, guaiacum, and other gummy-resinous substances. The officinal preparations of this drug are, the *Pulvis Aloës cum Canella*, Ph. Lond. (formerly called *Hiera Picra*) which consists of twelve parts aloes and three parts canella alba. Dose, from eight to fifteen or twenty grains; the *Pulvis Scammonii compositus cum Aloë*, Ph. Lond. which consists of scammony, extract of jalap, aloes, and ginger. It is a very drastic purge, and is given in obstinate constipations, and in worm cases in doses of five to fifteen grains; the *Pulvis Aloës cum Guaiaco*, Ph. Lond. which consists of 3-6ths aloes, 2-6ths guaiacum, and 1-6th aromatic powder. Dose, from ten to twenty grains. This composition is intended as a substitute for the aromatic pills of the old pharmacopœias, as the *Pulvis Aloës cum Ferro* (see Emmenagogues) is for that of the ecphractic pills. We do not see any advantage in this exchange of formulæ; on the contrary, we think that such a nauseous medicine as this, should, if possible, always be made into pills. Hence the following preparations

preparations are in more general use than the powders, viz. the *Pilulæ Aloës compositæ*, Ph. Lond. which consist of two parts aloes and one part extract of gentian, beat up with oil of carraway-seed and syrup of ginger. Dose, from eight to fifteen or twenty grains; the *Pilulæ Aloës cum Myrrha*, Ph. L. (see Emmenagogues); the *Pilulæ Aloeticæ*, Ph. Ed. consist of aloes and extract of gentian, equal parts. Dose, ten to thirty grains; the *Pilulæ Aloës cum colocynthide*, Ph. Ed. (formerly *Pilulæ Cocciaë*) consist of aloes, scammony, vitriolated kali, and colocynth, beat up with oil of cloves and mucilage of gum arabic. A strong cathartic. Dose, from ten to twenty grains; the *Pilulæ Aloës cum Myrrha*, Ph. Ed. (see Emmenagogues). Aloes are also an ingredient in the *Extractum colocynthidis compositum*, Ph. Lond. (see article Colocynth). The *Vinum Aloës*, Ph. Lond. (formerly called *Tinctura sacra*) is made by digesting eight ounces of aloes and two ounces of canella alba in six pints of white wine and two pints of proof spirit of wine. Dose, from half an ounce to an ounce and a half. The *Vinum Aloeticum*, Ph. Ed. is made by digesting an ounce of aloes, a dram of the lesser cardamom seed, and a dram of ginger, in a quart of white wine. It is a weaker preparation than that of the London college, and may be given in doses of one or two ounces. The *Tinctura Aloës*, Ph. Lond. et Ed.

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is made by digesting half an ounce of aloes and an ounce and a half of extract of liquorice, in eight ounces of water and eight ounces of proof spirit. Dose, from half an ounce to an ounce and a half. For the composition of the *Tinctura Aloes composita*, Ph. Lond. and *Tinctura Aloes cum Myrrha*, Ph. Ed. see Emmenagogues. Lastly, this drug is an ingredient in the *Tinctura Benzoes composita*, Ph. Lond. et Ed. (see p. 160).

BRYONIA alba. (*B. dioica* Jacquin). Diæcia. Syngenesia. Cucurbitaceæ. Indigenous. (Radix). Bryony. The root of this plant is a strong cathartic, suited to dropsical and maniacal cases; in which it is given in doses of twenty or thirty grains (*Thesaurus Med.* p. 64). It may be advantageously prescribed in the form of an infusion, made by steeping half an ounce of the fresh root in a pint of water, to which may be added a couple of ounces of spirit of juniper, pepper-mint, or any other aromatic, to prevent griping. Of such an infusion, a table spoonful may be given three or four times a day. It operates both by urine and stool. This plant is retained in the Edinburgh list of the materia medica. It certainly deserved a place in that of the London college. That it possesses considerable acrimony, or even some degree of virulence, can be no objection to its use, since the same may be said

of many other drugs that are administered every day. It seems to want nothing but rarity to recommend it. Had it been an exotic, we should have seen it in high repute.

CASSIA Fistula. Decandria. Monogynia. Lomentaceæ. Arbor. East and West Indies. Egypt. (*Cassia fistularis.* Fructûs pulpa). Cassia. Purg- ing Cassia. The pulp contained in the pods of this tree, operates gently by stool, when taken to the quantity of half an ounce or six drams. Except in the cases of children and pregnant women, its laxative power is too feeble to be trusted to alone; hence it is usually conjoined with crystals of tartar, tartarised kali, or some other neutral salt. The *Electuarium Cassiæ*, Ph. Lond. consists of cassia-pulp six parts, manna two parts, tamarind-pulp one part, dissolved in a gentle heat in rose-syrup, and evaporated to the consistence of an electuary. Dose, half an ounce to an ounce. In the *Electuarium Cassiæ*, Ph. Ed. (formerly called Diacassia) there is a trifling variation in the proportions of the tamarinds and manna. It may be given in the same doses. The other officinal preparation in which cassia-pulp is an ingredient, is the *Electuarium Sennæ*, Ph. Lond. et Edinb. the composition of which is mentioned in the following article.

CASSIA

CASSIA *Senna*. Class and Natural Order, the same as the last. Arabia. Egypt. Suffrutex. (*Senna. Folia*). *Senna*. The leaves of this shrubby plant are gently aperient. From half an ounce to six drams of the leaves infused in six ounces of boiling water, will generally move the bowels sufficiently. This is the usual dose for adults. To prevent griping, it is proper to put into the infusion some carraway or other aromatic seeds; and to expedite its operation and improve its flavour, some saline matters, such as crystals of tartar, or lemon-juice, are often added to it. The simple infusion, without any other additament than some coriander or carraway-seeds, is a common laxative for children. The *Pulvis Sennæ compositus*, Ph. Lond. consists of senna and crystals of tartar, each two ounces, scammony half an ounce, ginger two drams. Dose, half a dram to a dram. Suited to hydropic cases. The other officinal preparations, are the ¶ *Extractum Sennæ*, a griping medicine, which is seldom used, and which may be regarded as superfluous. One or two scruples may be given for a dose; the *Electuarium Sennæ*, Ph. Lond. et Ed. (formerly called *Electuarium Lenitivum*) which consists of senna-leaves eight ounces, figs one pound, pulp of tamarinds, cassia, and French prunes, each, half a pound, coriander-seeds four ounces, liquorice root three ounces, fine sugar two pounds and a half.

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The fenna-leaves and coriander-seeds are rubbed together, and ten ounces of fine powder is sifted from them. The remainder is boiled along with the figs and liquorice-root in four pints of water, to one half. The liquor is then filtered and evaporated to the weight of about a pound and a half, when the sugar is thrown in, so as to make a syrup, which is gradually added to the pulps; and, lastly, the fenna and coriander-powder is mixed with the whole. This electuary is in frequent use as a laxative for children and pregnant women. To adults, the dose is from half an ounce to an ounce and a half. To children, a dram or two. The number of ingredients might be reduced without impairing its qualities, by throwing out the pulp of cassia, and employing a double quantity of tamarinds or prunes in its place. The liquorice is added to improve the flavour; yet it has that effect in so slight a degree, that it might well be dispensed with. Thus simplified, it would be a much neater, without being a less operative preparation.—In extemporaneous prescription, jalap, crystals of tartar, purified sulphur (*flores sulphuris*) &c. are occasionally added to it. The *Infusum Sennæ simplex*, Ph. Lond. is made by macerating for the space of an hour, an ounce and a half of fenna and one dram of ginger in a pint of boiling water. Dose, from
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one to three or four ounces. The *Infusum Sennæ tartarizatum*, Ph. Lond. (formerly *Infusum Sennæ commune*) is made by macerating for an hour an ounce and a half of fenna and half an ounce of coriander-seeds in a pint of hot water, in which two drams of crystals of tartar have been previously dissolved by boiling. Dose, from one to two ounces. In the Edinburgh pharmacopœia, there is no infusion of which fenna is the basis; but it is an ingredient in the *Infusum Tamarindorum*, for the composition of which, see the article *Tamarindus*. The *Tinctura Sennæ*, Ph. Lond. is made by digesting for a fortnight a pound of fenna, an ounce and a half of carraway-feed, half an ounce of cardamom-feed, and sixteen ounces of raisins (freed from the stones) in a gallon of proof spirit. Dose, from half an ounce to two ounces. The *Tinctura Sennæ composita*, Ph. Ed. (formerly called *Elixir Salutis*) is made by digesting for a week two ounces of fenna, one of jalap, and half an ounce of coriander-seeds, in three pints and a half of proof spirit. After straining off the tincture, four ounces of sugar candy are added to it. This is a more active preparation than that of the London college; but it is apt to gripe more. Dose, half an ounce to an ounce and a half. *Willemet sur quelques Plantes medicinales*, 1778.

CONVOLVULUS *Jalapa*. Pentandria. Monogynia. Campanaceæ. Mexico. (Jalapium. Jalappa. Radix). Jalap. The root of this plant is a brisk and strong purge. It is especially suited to remove such obstructions of the intestinal canal as are occasioned by an accumulation of mucus, by torpor or irritability, and by worms. Hence its use in the tumid and bound belly, to which children and young people are liable; in cachectic, leucophlegmatic, and hypochondriacal subjects; in dropsies; in mania; and in worm cases. On account of its irritating quality, it is improper where the primæ viæ are inflamed, and where there is fever, unless it be of the remittent and intermittent kind. The dose for children is from three to eight or ten grains; for adults, from ten to thirty grains. To prevent griping, it is usual to add a drop of some aromatic oil to each dose. In dropical cases, crystals of tartar are often conjoined with it; and in cachectic and worm cases, calomel. (*Thesaurus Med.* p. 50, 51, 66, 345). The *Pulvis Jalappæ compositus*, Ph. Ed. consists of jalap one part, crystals of tartar two parts. Dose, from half a dram to a dram. The *Extractum Jalapii*, Ph. Lond. et Ed. is prepared by first digesting one part of the powdered root in four parts of spirit of wine, for the space of four days, and afterwards pouring off the

the tincture, and boiling down the residuum in ten pints of water to two. The strained decoction is then evaporated to the consistence of honey, and the spirit is abstracted from the tincture by distillation, till it is brought to the same consistence. Both products are then mixed together, and further evaporated to such a degree of inspissation, as is fit for making pills. This extract is given to children, triturated with a little sugar or almond-milk, in doses of from one to five grains; and to adults, in doses of five to ten or twelve grains, made into pills with soap or bitter extracts, and sometimes joined with calomel. This extract is an ingredient in the *Pulvis Scammonii compositus*, Ph. Lond. and *Pulvis Scammonii compositus cum Aloe*, Ph. Lond. for the composition of which see the following article: The *Tinctura Jalapii*, Ph. Lond. is made by digesting for eight days, eight parts jalap in thirty-two parts proof spirit. Dose, two drams to half an ounce. In the *Tinctura Jalappæ*, Ph. Ed. the proportion of the root to the spirit is less, viz. three ounces of the former to fifteen ounces of the latter. Dose, from three to six drams. These tinctures are very drastic, irritating purges, and are seldom given alone. They are commonly added in small quantities, such as a dram or two, to infusions of fenna, solutions of neutral salts, and other cathartic potions. (*Thesaurus Med.* p. 70, 79)

Schaller de Jalappa, 1761, reprinted in *Wittwer's Delectus Dissertationum Medicarum*.

CONVOLVULUS *Scammonia*. Class and Order, the same as the last. Aleppo. Smyrna, and other parts of the Levant. (Scammonium. Gummi-resina). Scammony. This gummy-resinous substance, which is the inspissated or concreted juice of the root of the plant, operates quickly and strongly by stool, in doses of from five to fifteen grains. As it coincides in its cathartic powers with jalap and the extract of jalap, it is suited to the same cases in which they are employed, viz. to obstructions of the intestinal canal from accumulation of mucus; to worm cases, and to dropsies. The *Electuarium Scammonii*, Ph. Lond. consists of scammony, an ounce and a half, cloves and ginger, each, six drams, oil of carraway, half a dram, rose-syrup enough to make an electuary. Dose, from fifteen grains to half a dram. The *Pulvis Scammonii compositus*, Ph. Lond. consists of scammony and extract of jalap, each, two ounces, ginger, half an ounce. Dose, from eight to twelve or fifteen grains. Especially suited to hydropic and worm cases. The *Pulvis Scammonii compositus*, Ph. Ed. consists of scammony and crystals of tartar, equal parts. It may be given in doses of from 10 to 20 or 30 grains. Like the

the other, it is an useful hydragogue purge. The *Pulvis Scammonii compositus cum Aloë*, Ph. Lond. consists of scammony six drams, extract of jalap, aloes, each, an ounce and a half, ginger, half an ounce. Dose, from five to ten or twelve grains. The *Pulvis Scammonii cum Calomelane*, Ph. Lond. consists of scammony, half an ounce, calomel and fine sugar, each, two drams. Dose, from five to fifteen grains. This is a good worm medicine. In doses of from three to eight or ten grains, it is a common and useful purge for children when the bowels are obstructed with slime. This drug is also an ingredient in the *Extractum Colocynthis compositum*, Ph. Lond. which preparation will be noticed under the following article.

CUCUMIS *Colocynthis*. Monœcia. Syngenesia. Cucurbitaceæ. Syria, and other parts of the Levant. (*Colocynthis*. Fructûs medulla). Bitter Apple. Bitter Cucumber. Coloquintida. Colocynth. The pulpy or spongy part of the fruit, exsiccated. This cathartic is so drastic and irritating in its operation, that it is scarcely applicable to any other cases, besides melancholy, lethargy, some hydropic affections, and worms; and even in these cases, it is not fit to be given alone in full doses, but should only be employed conjunctively with other purgatives, in such quantities as are sufficient

to quicken and increase their action. Violent gripings, bloody stools, inflammation of the intestines, and convulsions, have been the consequences of an unguarded use of this medicine. Dose, from two to six grains. The ¶ *Extractum Colocynthis compositum*, Ph. Lond. is, in our opinion, a preparation that could well be spared, and might be much better supplied by extemporaneous combination. It consists of a spirituous extract of colocynth, aloes, and scammony, aromatised with cardamom seeds. It may be given, made into pills, in doses of from five to fifteen grains.

Ficus Cáríca. Polygamia. Triæcia. Scabridæ. Arbor. Asia, and the Southern parts of Europe. (Carica. Fructus). The Fig. The pulpy part of this fruit is gently laxative. It is an ingredient in the *Electuarium Sennæ*.

FRAXINUS Ornus. Polygamia. Diæcia. Ascyroideæ. Arbor. Calabria. Sicily, and the Southern parts of Europe. (Succus concretus, *Manna dictus*). The Manna Ash. Manna, the concrete juice of the tree. Dr. *Cullen* has taken great pains to show, that there is little or no difference between manna and sugar. In their sensible and chemical qualities, both, he says, are alike; and he is at a loss to know in what respect the medicinal

medicinal power of the one is different from the other. That manna possesses the properties of sugar, is not to be doubted ; but because it coincides in taste and in chemical analysis, are we therefore to infer, that its action upon the living body is precisely the same ? The berry of the atropa bel-ladonna contains a saccharine juice, yet it is a strong poison ; and as for chemical analysis, how little that is to be relied upon, in relation to the medicinal properties of bodies, the experiments long since made by the French Academy, have abundantly shown. The truth is, that manna, though a saccharine substance, has a stronger effect upon the human body than sugar itself. Hence, in equal doses, it is more laxative ; and hence too, it is apt to gripe more. It is given to children, dissolved in water (with the addition of peppermint, or some other aromatic, to prevent flatulence) in doses of two drams or half an ounce ; and to adults, in doses of one or two ounces. To the latter, however, it is seldom given by itself in full doses, but is generally added in quantities of half an ounce or six drams to infusions of senna and tamarinds, or to solutions of neutral salts. It is sometimes prescribed in the form of an electuary. See *Thesaurus Medicam.* p. 65. It is an ingredient in the *Electuarium Cassie*, Ph. Lond. et Ed. *Hoffmann* de Manna, ejusque præstantissimo in medicinâ usu,

1725. *Heister de Manna*, 1752. *Trainer Examen-chemicum Mannæ*, 1793.

CAMBOGIA *Gutta*. Polyandria. Monogynia. Tricoccæ. Arbor. East Indies. (Gambogia. Gummi Gutta. Gummi-resina). This gummy-resinous substance is the juice that flows from the wounded bark of the tree, concreted by the combined action of the sun and air. It is a strong cathartic, which may be advantageously employed in hydropic and worm cases, in doses of from three to fifteen or twenty grains. It is generally made into pills with calomel, rhubarb, soap, bitter extracts, &c. *Cullen* used to direct it to be triturated into a powder with sugar. *Werlhof* mixed it with water and a little sugar, adding some spirit of cinnamon, to render it palatable and make it sit better upon the stomach. Others prescribe it in a liquid form, joined with alkaline or neutral salts. (*Thesaurus Med.* p. 52, 60, 74). A foreign physician of eminence administers it in dropsies, in the following manner. Half a dram of the gum-resin is dissolved, by trituration in a strong lixivium of salt of tartar. After it has stood to settle, the liquor is poured off from the sediment; and of this, forty or fifty drops are, at first, given twice a day, in a cup of tea, coffee, or milk and water. After a few days, if the medicine ceases to operate sufficiently,

ficiently, the dose is increased to half as much more, or twice as much; and so on, according to its effects and the state of the patient. It operates both by stool and urine, and in this way many watery collections have been removed. These observations in favour of the hydragogue powers of gamboge, our own experience fully confirms. Our method of exhibiting it, however, is in the form of pills, in conjunction with squill and some of the warm gums. To promote the operation of these pills, we direct the patient to dilute with a solution of crystals of tartar, or some other saline or acidulated liquor. *Gaupp de Cambogiæ Guttæ succo*, 1777.

¶ *GRATIOLA officinalis*. Diandria. Monogynia. Personatæ. Austria. France. Italy. (Herba. Radix). Hedge Hyssop. Of late years this plant has been much cried up in Germany as an useful cathartic in dropical and worm cases. That it is no inert thing, is proved by several cases upon record, in which it excited violent vomiting and purging; but whilst there are so many other articles in the list of the materia medica, that are equally as operative, and rather more manageable than this, we think it may well be dispensed with. The powder of the dried herb is given in doses of from fifteen grains to half a dram. The infusion is made

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with

with two drams to half a pint of water. Of this, two or three table spoonfuls are given three times a day. The root is stronger, and is accordingly given in smaller doses. *Koßrewski de Gratiola*, 1775.

HELLEBORUS niger. Polyandria. Polygynia. Multifiliquæ. Austria. Alps. Apennines, and Pyrenees. (*Melampodium. Radix*). Black Hellebore. This is a celebrated purge in maniacal and dropfical cases; yet we much question whether, in such disorders, it possesses any advantages over jalap, scammony, colocynth; especially when the operation of these is quickened and supported by mercurials and antimonials; and, in respect to its emmenagogue powers, we are convinced that it is in no degree superior to aloes and savine. If to these considerations, we add the virulent effects which black hellebore has sometimes produced, and the great uncertainty there is in procuring the genuine roots, we shall have sufficient reason for thinking this plant may be spared from the materia medica. The black hellebore root is very rarely prescribed in substance. The most usual form is that of a decoction, made with two drams of the root to a pint of water. An ounce of this is given every four hours. (*Thesaurus Med.* p. 87). The officinal preparations from it in our pharmacopœias, are

are the *Extractum Hellebori nigri*, Ph. Lond. et Ed. (formerly called *Extractum Melampodii*) which is made by evaporating the decoction to a due consistence. Dose, from three to six or eight grains. This extract is the basis of *Bacher's* celebrated hydragogue pills, composed (according to the Geneva pharmacopœia) of extract of black hellebore, myrrh, and carduus benedictus, beat up together in the proportion of thirty grains of the two first ingredients and five grains of the last, and made into pills weighing a single grain. Dose, 3, 4; or 6, three or four times a day. The *Tinctura Hellebori nigri*, Ph. Lond. (formerly called *Tinctura Melampodii*) is made by digesting four ounces of the root and two scruples of cochineal in two pints of proof spirit. Dose, one or two drams. The Edinburgh tincture is somewhat weaker, being made with two pints and a half of spirit to four ounces of the root. Both the extract and tincture are chiefly used as emmenagogues. *Buchner de Ellebori nigri usu*, 1751. *Franz Virtus Hellebori nigri hydragoga*, 1787.

¶ *HELLEBORUS fœtidus*. Class and Order, as the last. Indigenous. (Helleboraster. Folia). Bearsfoot. Stinking Hellebore. A decoction of the leaves is a strong, but not very safe purge. Its doses have not been ascertained with precision. *Bisset* recommends a syrup prepared from the expressed

pressed juice, as a worm medicine for children (*Thesaurus Med.* p. 348). But, after all, this herb appears to us to be a superfluous article in the long catalogue of cathartic drugs.

LEONTODON *Taraxacum*. *Leontodon Officinalis*. Syngenesia. Polygamia æqualis. Compositæ semiflosculæ. Indigenous. (*Taraxacum*, *Dens Leonis*. Radix. Herba). Dandelion. This common plant is as much undervalued in this as it is over-rated in other countries. From our own experience we can assert, that it is no inefficacious deobstruent in jaundice, dropsy, and other cases of visceral obstruction. The best form of prescribing it is in decoction, in the proportion of two or three ounces of the root to a pint of water. Two or three drams of crystals of tartar or vitriolated kali make an useful addition to this decoction. (*Thesaurus Med.* p. 86). Sound, full grown roots, should be chosen; they should be sliced thin, and should be boiled gently for the space of two or three hours, adding a fresh quantity of water as often as shall be necessary, so that there may be left a pint at the last. Whoever will be at the pains of making the decoction, or of directing it to be made, in this manner, will find it to be, in the cases above-mentioned, a very serviceable medicine. *Delius* de *Taraxaco*, 1754, and reprinted in *Baldinger's Sylloge*, 1776.

¶ *MOMORDICA Elaterium*. Monœcia. Syn-
genesia. Cucurbitaceæ. Italy, Sicily, and South-
ern parts of Europe. (*Cucumis agrestis*. *Fructus*
recens). Wild Cucumber. The fresh fruit of this
plant is a violent and acrimonious cathartic. *Ela-*
terium is prepared from the feculent part of the ex-
pressed juice; dried with a gentle heat. In the
days of *Sydenham*, it was in frequent use as a purge
in dropsies; but on account of its irritating effects,
and the hypercatharsis which it has sometimes in-
duced, it is seldom prescribed in modern practice.
Indeed, while there are so many other safer hydra-
gogues, why should we resort to one from which
mischief may arise? Dose, from one to three grains.

NICOTIANA Tabacum. (see p. 111). Tobacco.
As a cathartic, this plant is used clyster-wise in two
ways, viz. an infusion of it is injected into the in-
testines, and the smoke arising from the burnt leaves
is introduced *per anum*. In cases of obstinate con-
stipation, of colic, worms, and ileus, these clysters
frequently bring away the fæces after other pur-
gatives have failed. The infusion for the clyster is
made with two drams of the leaves to a pint of boil-
ing water. (*Thesaurus Med.* p. 89). Of the use
of Tobacco in dropical affections, mention will be
made under Diuretics.

PINUS Larix. Monœcia. Polyandria. (Mo-
nadelphia.

nadelphia. Polyandria of later Botanists). Coniferæ. Arbor. Switzerland, Tyrol, Stiria, Bohemia, Siberia. (Liquor resinofus vel balsamicus e cortice inciso stillans, *Terebinthina* dictus. *Terebinthina* Veneta). The Larch Tree. The resinous or balsamic liquor, called *Turpentine*, that flows from the wounded bark. Venice Turpentine. This, and the other turpentine, injected into the intestines, in the dose of half an ounce or six drams, previously mixed by means of the yolk of an egg, with a sufficient quantity of water, seldom fail to produce copious evacuations by stool, in colic and cases of obstinate costiveness. For further remarks on Turpentine, see Stimulants.

PRUNUS *domestica* (see p. 64). Prunes. The laxative property of the variety called *Pruneola* vel *Prunella*, *French Prunes*, has been already noticed in the place above referred to.

¶ RHAMNUS *catharticus*. Pentandria. Monogynia. Dumosæ. Frutex. Indigenous. (Spina cervina. Baccæ). Buckthorn. From the expressed juice of the berries, boiled with a proper quantity of sugar, is prepared a syrup, which has a place in both the British pharmacopœias. To prevent its griping operation, the *Syrupus Spinae Cervinae* of the London College is aromatized with
pimento

pimento and ginger. The dose of this, as well as of the *Syrupus Rhamni Cathartici*, Ph. Ed. is from six drams to an ounce or an ounce and a half. This is a nauseous cathartic, whose place may at all times be much better supplied by senna, jalap, and several other articles of this class.

RHEUM palmatum. Enneandria. Trigynia. Oleraceæ. Tartary, Thibet, and other parts of Asia. (*Rhabarbarum*. Radix). Rhubarb. The root of this plant is a well known laxative. It is given in substance, in doses of from ten grains to two scruples or more. To quicken its operation, and prevent its secondary astringent effect, it is usual to join with it calomel, crystals of tartar, vitriolated kali, or some other neutral salt, of which compositions see various examples in *Thesaurus Med.* p. 49, 50, 62, 64. The officinal preparations of this drug, are the *Infusum Rhei*, Ph. Ed. which is made by macerating half an ounce of the root, for the space of a night, in eight ounces of boiling water, and afterwards adding one ounce of spirit of cinnamon, and straining off the liquor. From two to four ounces may be given at a time. The *Vinum Rhabarbari*, Ph. Lond. (formerly called *Tinctura Rhabarbari vinosa*) is made by digesting for ten days two ounces and a half of the root, half an ounce.

ounce of the lesser cardamom seeds, and two drams of saffron, in two pints of mountain wine and eight ounces of proof spirit. Dose, one or two ounces. The saffron contributes nothing to the efficacy of this composition, and therefore ought to be left out. The *Vinum Rhei*, Ph. Ed. is aromatized with *cannella alba* instead of cardamom seeds. It is a less compound and a stronger preparation, being made with two ounces of rhubarb, one dram of *cannella alba*, two ounces of proof spirit, and fifteen ounces of white wine, steeped together for seven days. Dose, from half an ounce to an ounce. The *Tinctura Rhabarbari*, Ph. Lond. is made with two ounces of the root, half an ounce of cardamom, and two drams of saffron, digested for eight days in two pints of proof spirit. Here again, and in the next preparation, we have the useless and unpalatable additament, the saffron. Dose, from half an ounce to an ounce and a half. The *Tinctura Rhabarbari composita*, Ph. Lond. consists of rhubarb two ounces, liquorice-root half an ounce, ginger and saffron, each, two drams, water one pint, proof spirit twelve ounces, digested together for fourteen days. Dose, as a purge, one ounce ; but it is chiefly used as a stomachic, in small doses of two or three drams. In the Edinburgh pharmacopœia, there are as many as four different tinctures of this
root,

root, viz. the *Tinctura Rhei*, Ph. Ed. made with rhubarb three ounces, lesser cardamom seeds half ounce, proof spirit two pints and a half, digested for seven days. Dose, from half an ounce to an ounce; the *Tinctura Rhei dulcis*, Ph. Ed. made by adding to the preceding preparation four ounces of sugar candy; the *Tinctura Rhei amara*, Ph. Ed. made with rhubarb two ounces, gentian-root half an ounce, serpentaria-root one dram, proof spirit two pints and a half, digested for seven days. Dose. as a purge, half an ounce or six drams; as a stomachic, two or three drams; and, lastly, the *Tinctura Rhei cum Aloe*, Ph. Ed. (formerly called Elixir sacrum) made by digesting together for seven days, rhubarb ten drams, aloes six drams, cardamom-seeds half an ounce, proof spirit two pints and a half. Dose, as a purge, half an ounce or six drams; as a stomachic, one dram. *Alpinus* de Rhabarbaro, 1718. *Gmelin* de Rhabarbaro, 1752. *Linnaeus* de Rhabarbaro, 1753; and in *Amœnitat. Academ. Vol. III.*

RICINUS communis. Monoëcia. Monodelphia. Tricoccæ. West Indies; (*Oleum feminis*). *Palma Christi.* The oil obtained from the seeds of this vegetable, either by expression or coction, is an excellent laxative in cases of obstinate constipation, colica saturnina, ileus, stone and gravel, piles, &c.

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It may be given, mixed up with water, by means of yolk of egg or gum arabic ; or, what is much better, floating upon a glass of lemonade or peppermint water, or any other aromatic liquor. To these may sometimes be added a little tincture of rhubarb or senna. (*Thesaurus Med.* p. 72). Dose, from half an ounce to an ounce. A large quantity is apt to provoke vomiting ; hence it is best to give it in small doses, frequently repeated. It is so little irritating in its operation, that it may be given with great safety and advantage to pregnant women and infants ; to the last, in doses of one or two teaspoonfuls. Where it excites vomiting, or cannot on other accounts be given by the mouth, it may be administered with good effect clyster-wise. *Fischer de Ricino*, 1719. *Canvane* on the Oleum Palmæ Christi, or Castor Oil, 1769. *Fuchs de Oleo Ricini*, 1782.

SACCHARUM *officinarum*. Triandria. Digynia. Gramina. Africa, and the East Indies, and, by transplantation, in the West Indies. (Sal essentielle dulce, Saccharum dictum, é succo culmorum paratum). The Sugar Cane. Sugar, a sweet essential salt, obtained from the juice of the stalks. *Brown Sugar* (Saccharum rubrum vel Thomæum) when taken freely, has a laxative effect ; but with
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this intention it is seldom used in any other form than that of clysters, for which purpose an ounce or two of it may be dissolved in ten or twelve ounces of gruel or broth, and injected as often as may be necessary. Melasses, or Treacle (*Melassus*) is considerably more aperient than the sugar. It is a common, and by no means unwholesome laxative for children. For other remarks on sugar, see P. 90.

SAMBUCUS nigra. Pentandria. Trigynia. Dumosæ. Arbor. Indigenous. (Cortex interior). Common Elder. The inner green bark is a strong cathartic. On the recommendation of *Boerhaave* and *Sydenham*, it is sometimes given in dropsies. The formula of the last-mentioned physician is by much too operative for the present race of English. If instead of three handfuls, one ounce of the bark is boiled in a quart of water down to a pint, the decoction will be as strong as most patients can bear. This may serve for four doses; and to make it more tolerable to the stomach and bowels, one or two ounces of spirit of cinnamon may be added to it.

SAMBUCUS Ebulus. Class and Order, as the last. Indigenous. (Ebulus. Cortex interior). Dwarf Elder. The inner bark of this plant, which
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is an herbaceous perennial, is a strong hydragogue purge, like the bark of the preceding species. Dr. *Brockelsby* (*Œconomical and Medical Observations*, 1764) was witness to astonishing success in ascites from the fresh inner rind, boiled in water till it makes it exceedingly bitter, and taken upon an empty stomach in the morning, so as to vomit and purge downwards very powerfully. At the same time it proved considerably diuretic. These advantages were derived from this decoction after several fruitless trials with various other cathartics. We are not told what was the proportion of the elder bark to the water; but, where vomiting is not required, half an ounce or six drams boiled in a pint and a half of water down to twelve ounces, and divided into three equal doses, will be sufficiently operative for most patients.

SPARTIUM scoparium. Diadelphia. Decandria. Papilionaceæ. Fruticulus. Indigenous. (Genista. Cacumina vel summitates). Broom. If an ounce of the green tops of this shrubby plant be boiled in a pint and a half of water down to a pint, and two ounces of this decoction be given three or four times a day, a copious evacuation by stool as well as by urine will generally follow. Hence this decoction is an useful cathartic in dropsies. The bark is more operative than the tops. The seeds,
in

in full doses, are apt to vomit rather than to purge. As an hydragogue medicine, they are inferior to either the tops or the bark of the stem. (*Thesaurus Med.* p. 86, 109).

TAMARINDUS Indica. Tetrandria. Monogynia. Lomentaceæ. Arbor. East and West Indies, Egypt, and Arabia. (Fructus). The Tamarind. The pulpy fruit of this tree is a pleasant and useful laxative in dysentery and other febrile disorders, especially in such as are of a bilious and putrid nature. The dose of the pulp is from half an ounce to one or two ounces. It is generally given in decoction or infusion, combined with crystals of tartar, vitriolated kali, or some other neutral salt, and sometimes with rhubarb and senna. (*Thesaurus Med.* p. 71, 72, 82). The *Infusum Tamarindorum cum Senna*, Ph. Ed. consists of tamarinds six drams, crystals of tartar and senna, each, one dram, coriander-seed half a dram, brown sugar half an ounce, macerated for four hours in eight ounces of boiling water. This may serve for two or three doses. *Tamarind-whey* (serum lactis tamarindatum) is a pleasant laxative antiseptic drink, made by adding a couple of ounces of the fruit to a pint or a pint and a half of boiling milk, and afterwards continuing the boiling till the milk is curdled, and then straining off the whey through a
P 2
linen

linen or flannel bag. Of this whey a tea cupful may be drunk at pleasure. The tamarind-pulp is an ingredient in the *Electuarium Cassiæ* and *Electuarium Sennæ* of the Lond. and Ed. pharmacopœias.

¶ *VERATRUM album*. White Hellebore (see p. 113). The root and the extract prepared from it, evacuate upwards and downwards violently. Even in small doses, the veratrum album acts with so much virulence, that its internal exhibition cannot be too much discountenanced. For maniacal disorders, we have plenty of medicines that are sufficiently operative without being dangerous. On the external use of this root, see Errhines and Heteroclites.

TO this division of Cathartics from the Vegetable Kingdom, belong the following Salts, which either consist entirely of a vegetable acid and the vegetable alkali, or else have the vegetable alkali or the tartareous acid for one of their component parts.

TARTARUM purificatum, Ph. Lond. et Ed.
CrySTALLI tartari. (Cremor tartari). Purified Tar-
 tar.

tar. Crystals of Tartar. Cream of Tartar. This saline substance is deposited from wine upon the sides of the casks. The austere and acid wines yield the greatest quantity and the best. It is purified by repeated solution in boiling water, which is afterwards evaporated, that the salt may crystallize. These crystals of tartar consist of the vegetable alkali super-saturated with the tartareous acid ; and therefore might, conformably to the new nomenclature of the London College, be properly enough denominated Kali super-tartarifatum, in contradistinction to the Soluble tartar or Kali tartarifatum. Crystals of tartar are an excellent laxative in jaundice, dropsy, dysentery, and in bilious and putrid fevers. Dose, from two drams to an ounce. They may be given in powder with rhubarb, jalap, or other cathartics ; or made into an electuary with tamarinds and other pulpy substances ; or in infusion and decoction, with the addition of some of the purging tinctures. In the last of these modes of exhibition, viz. in infusion or decoction, the crystals can only be given in small quantities, as they require so much water for their solution. For examples of all the above-mentioned formulæ, see *Thesaurus Medicaminum*, p. 50, 51, 65, 82.

KALI tartarifatum, Ph. Lond. Lixiva tartarifatata, Ph. Ed. (Tartarum solubile. Tartarus tartarifatatus).

tarifatus). Tartarised kali. Tartarised lixiva. Soluble tartar. Tartarised tartar. Consists of tartareous acid saturated with the vegetable alkali. This is a neutral salt ; whereas in the purified tartar, or crystals of tartar, the acid predominates. Half an ounce proves gently laxative ; but it is usually added in small doses, such as a couple of drams to infusions of rhubarb and fenna. It dissolves readily in water.

NATRON *tartarifatum*, Ph. Lond. Soda tartarifata, Ph. Ed. (Sal Rupellensis. Sal de Seignette). Tartarised Natron. Tartarised Soda. Rochelle Salt. Seignette Salt. Consists of acid of tartar and mineral alkali. This is a very useful, and not very unpalatable salt. It is given in doses of half an ounce to an ounce and a half. It is especially suited to jaundice, and cases of stone and gravel.

KALI *vitriolatum*, Ph. Lond. Lixiva vitriolata, Ph. Ed. (Tartarum vitriolatum. Arcanum duplicatum. Sal de duobus. Sal polychrestus). Vitriolated kali. Vitriolated lixiva. Vitriolated tartar. Double arcanum. Salt of many virtues. Consists of vegetable alkali and acid of vitriol. Deobstruent in doses of one or two drams ; cathartic in the quantity of half an ounce.

From

(3) *From the Mineral Kingdom.*

HYDRARGYRUS *purus*. Pure Quicksilver (see p. 116). Formerly it was much the fashion to prescribe *draughts of pure quicksilver* in obstinate constipations of the bowels, and in cases of ileus. Eight, ten, or twelve ounces of the metallic fluid were swallowed at once ; but the event of the cases in which it has been given, in this manner, throws out little encouragement for the adoption of this practice. Would there be more probability of success, if this mechanical remedy were employed in the early stage of these diseases ? It is certain that it has seldom been used till things were in the last extremity.

HYDRARGYRUS *tritu subactus*. Triturated Quicksilver. Of this consist the *Pilulæ Hydrargyri*, Ph. Lond. et Ed. (see p. 118). Fifteen or twenty grains of these pills, repeated at intervals of three or four hours, according to the urgency of the symptoms, may be given to procure stools, in jaundice, and other hepatic diseases, dropsies, obstinate constipations, and ileus.

CALOMELAS, Ph. Lond. Hydrargyrus muriatus mitis, Ph. Ed. Calomel. Mild muriated quicksilver (see p. 135). From three to six or eight grains of this mercurial preparation, operate quickly and powerfully downwards, and may be given with great advantage in the same cases as the triturated quicksilver, and also against worms. Two or three grains make an excellent purge for children, whose bowels are hard and obstructed with slime.

MAGNESIA *pura*. Magnesia usta, Ph. Lond. et Ed. Pure Magnesia. Calcined Magnesia. This is the earthy basis of Epsom salt, obtained by adding prepared kali to the salt, dissolved in a large quantity of boiling water, then passing the liquor through a cloth strainer, and washing the white powder that remains upon it till it is deprived of all saline taste; and, lastly, subjecting the powder to a red heat. By the action of the fire, the fixed air or carbonic acid, which previously adhered to the magnesia, is expelled from it, and it is left pure.

MAGNESIA *aërata*. Magnesia alba, Ph. Lond. et Ed. Aërated Magnesia. White Magnesia. This differs from the preceding in no other respect than

than in being combined with fixed air or carbonic acid. The same process is followed for preparing it, except that it is not subjected to calcination. Both this and the other are used as a laxative for children in acidities of the *primæ viæ*, in doses of from twenty grains to a dram. The aerated is somewhat more laxative than the pure magnesia. This medicine is commonly prescribed too freely and with too little discrimination to children. Since the general abuse of it, hard and slimy bellies have, we are persuaded, been more frequent. By officiously destroying all acidity in the *primæ viæ* of infants and young subjects, we impede digestion, check nutrition; and by diminishing the natural and proper sensibility of the intestinal canal, render it sluggish and inactive, and consequently liable to obstructions. For other remarks on this article, see Absorbents. *Hoffman* Animadversiones et Experimenta circa Magnesium albam; in his Observationes physico-chimicæ, 1736. *Black* de Humore acido à cibis orto et Magnesia alba, 1754. *Henry's* Experiments and Observations on Magnesia, &c. 1773. *Schæffer* de Magnesia, 1774.

MAGNESIA *vitriolata*, Ph. Lond. et Ed. (Sal Catharticus amarus. Sal Epsomensis). Vitriolated magnesia. Bitter purging salt. Epsom salt. Consists of magnesia and vitriolic acid. This is a nauseous, but mild and efficacious laxative, and is
given

given in doses of half an ounce or an ounce in hypochondriacal cases, colica pictonum, ileus, &c. Small doses, such as a couple of drams, frequently repeated, often succeed better in procuring stools in the last mentioned cases, than larger quantities, which are apt to be rejected by the stomach. *The-saurus Med.* p. 69, 77. The medicinal spring at Epsom owes its purgative virtue to this salt.

NATRON *muriatum*, Ph. Lond. SODA *muriata*, Ph. Ed. (Sal muriaticus. Sal marinus. Sal culinaris. Sal communis.) Muriated natron. Muriated soda. Sea salt. Kitchen salt. Common salt. Consists of the mineral alkali and muriatic acid. Half an ounce dissolved in a pint of water, will, in most instances, purge smartly. Of late it has been praised as an excellent cathartic in worm cases. It is a common and useful addition to purging clysters. It is obvious that Sea-water owes its laxative quality to this salt.

NATRON *phosphoratum*, Soda phosphorata. Phosphorated Natron. Phosphorated Soda. Consists of mineral alkali and phosphoric acid. This is a mild, not unpalatable laxative. Dose, from six drams to an ounce and a half or two ounces. *Pearson* on the Soda phosphorata in the *Journal de Physique* for 1788, and also in *Crell's Annals* for 1789.

NATRON

NATRON *vitriolatum*, Ph. Lond. Soda Vitriolata, Ph. Ed. (Sal catharticus Glauberi. Sal Glauberi). Vitriolated Natron. Vitriolated Soda. Glauber's purging salt. Glauber's salt. Consists of mineral alkali and vitriolic acid. A very common and useful purgative. Dose, from half an ounce to an ounce and a half. The Cheltenham water owes its laxative quality partly to this salt and partly to vitriolated magnesia.

SAPON ex Oleo olivæ et Natro confectus, Ph. Lond. Soap made of olive-oil and mineral alkali. (N. B. The Sapo alicantinus vel hispanicus (Spanish soap) consists of the same ingredients, but the sapo vulgaris (common soap) is made of vegetable alkali and fat or tallow. None but the former should be used for medicinal purposes). In doses of one or two drams, it is gently laxative, and is sometimes employed in cases of habitual costiveness, jaundice, &c. It is commonly made into pills with bitter extracts, ammoniacum, aloes, and the like. *Schulze de Saponis usu medico*, 1746.

SULPHUR (see p. 168, 169). Flowers of Sulphur are laxative in doses of one or two drams. They are often employed with good effect to procure stools in hæmorrhoidal affections. *Thesaurus Med.* p. 67.

F. DIURETICS.

F. DIURETICS.

(1) *From the Animal Kingdom.*

MELOE *vesicatorius*. Coleoptera. (Cantharis). Spanish Fly. Of late years this insect has been given in dropical cases, to promote the urinary secretion. *Werlhof's* method was to prescribe one grain of the powdered fly every fourth or sixth hour, directing the patient to drink after it some mucilaginous drink, such as almond-emulsion, gruel, or the like. This, however, is too large a dose to begin with. The safer way is to give only half a grain at a time, or, in irritable subjects, not more than a quarter of a grain, which may be repeated four times in the course of a day. Others prefer the Tincture (*Tinctura Cantharidis*, Ph. Lond.) which may be given in doses of thirty or forty drops, in a solution of acetated kali, or any other saline vehicle. (*Thesaurus Med.* p. 98, 99). After all, this is a very uncertain diuretic, in the use of which many practitioners have been repeatedly disappointed. For further remarks on this article, see Stimulants.

¶ ONISCUS *Asellus*. (Millepeda). See p. 139. The Woodlouse. In the recent state these insects have

have been given in the quantity of a dram or more, to promote urine, in hydropic cases. With the same intention the dried insects have been prescribed in doses of fifteen or twenty grains. But, while we are provided with so many other more powerful diuretics, the millepedes may be very well dispensed with. *Cartheuser de Millepedis*, 1771.

(2) *From the Vegetable Kingdom.*

ALLIUM Ceba. Hexandria. Monogynia. Liliaceæ. (*Ceba. Radix*). Onion, This and the roots of the

ALLIUM Porrum. Leek ; and of the

——— *sativum.* Garlick ; are frequently resorted to in dropical cases, but rather as auxiliary than as principal agents. See Part I. p. 55-56.

¶ *ARCTIUM Lappa.* Syngenesia. Polygamia æqualis. Compositæ capitatæ. Indigenous. (*Bardana. Radix*). Burdock. A decoction of the roots of this plant is diuretic, but in so slight a degree as scarcely to deserve notice. It is said to have been useful in cases of stone and gravel. If it is

is entitled to any place in the materia medica, it must be in the class of Demulcents.

ASARUM *Europæum*. (See p. 110). Asarabacca. A decoction of the roots of this plant operates powerfully by urine, and has been employed with advantage in dropsies; as has been before mentioned at the page above referred to.

¶ ASPARAGUS *officinalis*. Hexandria. Monogynia. Liliaceæ. Indigenous. (Turiones et Radix). Asparagus. The shoots and root. The former, viz. the shoots have been already noticed among the alimentary substances. Of the latter, viz. the root, a strong decoction was formerly employed in dropsies; but in modern practice it is justly disregarded.

CAMBOGIA *Gutta* (see p. 198). Gamboge. For remarks on the diuretic powers of this gum-resin, see the page above referred to.

¶ COCHLEARIA *Armoracia*. Tetradynamia. Siliiculosa. Siliquosæ. Indigenous. (Raphanus rusticus. Radix). Horseradish. An infusion of this root was successfully employed by Sydenham in dropsies consequential to intermittent fevers. For more on this subject, see Stimulants.

¶ *COLCHICUM autumnale*. (See p. 143). Meadow Saffron. Has been prescribed with some success in ascites and hydrothorax; but in these cases, as well as in cases of humoural asthma, we have found the Squill, or Foxglove, a better medicine. The different preparations of the colchicum are noticed at the page above referred to.

COPAIFERA officinalis. (See p. 145). Balsam of Copaiva. What is said of Turpentine farther on, will apply here.

CYNARA Scolymus. Syngenesia. Polygamia æqualis. Compositæ Capitatæ. Southern parts of France, Italy, Sicily. (*Cinara. Folia*). Artichoke. Of the dietetical use of the receptacle of the flowers of this plant, notice has been already taken in Part I. of this Treatise. In this place it remains only to be mentioned, that the expressed juice of the leaves mixed with an equal quantity of Madeira or other cordial wine, has been given with good effect to dropical patients. Of this mixture the dose is an ounce or an ounce and a half twice a day. *Murray*, Vol. vi. More active medicines of this order render the Artichoke superfluous.

DAPHNE Mezereum. Mezereon. See Stimulants.

¶ DAU-

¶ *DAUCUS Carota.* Pentandria. Digynia. Umbellatæ. Indigenous. (*Daucus Sylvestris. Semina*). A strong infusion of the seeds has been much recommended by several writers in cases of stone and gravel; but against these diseases it is fortunate for mankind that the materia medica affords more efficacious remedies.

DIGITALIS purpurea. (See p. 145). Foxglove. Under proper management, this is a very powerful and not unsafe diuretic. According to Dr. *Withering* (from whose Treatise are taken most of the observations on this article) it is a much more certain diuretic than any other in present use. The leaves are the most preferable part of the plant for medical use. They should be dried sufficiently to allow of being readily reduced to powder. In this state, they may be administered in two ways, viz. either made into pills with ammoniacum, soap, or aromatics, or infused in water. In the first of these forms, from one to three grains of the powder may be given to adults twice a day. In the reduced state in which physicians generally find dropical patients, four grains a day are sufficient. In the other form of exhibition, a dram of the dried leaves is infused for four hours in half a pint of boiling water, adding to the strained liquor an ounce of any spirituous water. One ounce of this infusion given
twice

twice a day, is a medium dose for an adult patient. If the patient be stronger than usual, or the symptoms very urgent, this dose may be given once in eight hours; and on the contrary in many instances half an ounce at a time will be quite sufficient. About 30 grains of the powder, or eight ounces of the infusion, may generally be taken before the nausea commences. When the digitalis is disposed to purge, opium may be joined with it advantageously; and when the bowels are too tardy, jalap may be given at the same time without interfering with its diuretic effects. As this medicine when given in very large and quickly repeated doses, produces violent and sometimes deleterious effects, the following general precept of Dr. *Withering* should be well attended to by all who prescribe it. Let the medicine be given in the doses, and at the intervals mentioned above; let it be continued until it either acts on the kidneys, the stomach, the pulse, or the bowels; and let it be stopped upon the first appearance of any one of these effects. Administered in this way, the digitalis has been eminently serviceable in various kinds of dropsies, in humoral asthmas, and in some instances of phthisis pulmonalis.

The author of the *Zoonomia* for a long time was in the habit of prescribing a decoction of the fresh leaves (*Thesaurus Medicaminum* p. 111) but
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latterly he has employed a saturated tincture of the *dried* leaves in spirit of wine, which, though it may have no advantages over the pills and infusion above-mentioned, is certainly a much more manageable preparation than the decoction. This tincture is made by putting two ounces of the foxglove leaves nicely dried and coarsely powdered into a mixture of four ounces of rectified spirit of wine, and four ounces of water. The mixture is to stand by the fire-side twenty-four hours and the bottle to be frequently shaken; after which the tincture must be poured from the sediment, or passed through filtering paper. As the size of a drop is greater or less according to the size of the rim of the phial from which it is dropped, a part of this saturated tincture is directed to be put into a two-ounce phial, for the purpose of ascertaining the size of the drop. Thirty drops of this tincture are added to an ounce of mint-water for a draught, to be taken twice or thrice a day, till the anasarca of the limbs is reduced, or the difficulty of breathing in hydrothorax is removed, or till sickness is induced. And if these effects do not occur in two or three days, the dose must be gradually increased to forty or sixty drops, or further (*Zoonomia*, Vol. II. p. 718). See account of the effects of the foxglove at the end of *Darwin's* Experiments establishing a criterion

tion between Mucaginous and Purulent Matter, 1780. *Withering's* account of the foxglove and some of its medical uses, 1785. *Merz de Digitali Purpureâ*, 1790.

JUNIPERUS communis. Diæcia. Monadelphia. Coniferæ. Frutex. Indigenous. (Baccæ). Juniper. The berries of this shrub are a popular diuretic in most parts of Europe. They may be given either in substance or infusion. In the first way, the dried berries may be triturated with a little white sugar, or some neutral salt, and given in doses of from a scruple to half a dram, three or four times in the course of 24 hours; but when thus administered the medicine proves oppressive to some stomachs. Hence the infusion will generally be found the most convenient form. It should be made in the proportion of two or three ounces of the seeds, well bruised, to a pint of boiling water. (*Thesaurus Medicaminum*, p. 107). It should be drunk freely. The *Spiritus Juniperi compositus*, Ph. Lond. et Ed. is made by distilling the berries, along with some carraway and fennel seeds, with proof spirit. It is a warm aromatic; but in diuretic powers it falls very short of the watery infusion. *Bang de Junipero*, 1708.

NICOTIANA Tabacum. (See p. 111 and 151). Tobacco. An infusion made by steeping the

Q 2

leaves

leaves in water, in the proportion of one ounce of the former to one pound of the latter, has been given by Dr. *Fowler* with considerable success in cases of dropsy and dysury, in doses of sixty or eighty drops (to adults) twice a day. To a patient of ten or twelve years of age forty drops, and to one of five years twenty drops, are a sufficient dose. A tincture or wine may be made in the same proportions. In its operation, the infusion, or tincture, or wine of tobacco is a very unpleasant medicine, producing heat in the throat, giddiness, nausea (often vomiting) drowsiness, headach, &c. It is commonly laxative. As an hydragogue, we deem it inferior to the digitalis and squill, and accordingly are little disposed to recommend it in dropsies; but in cases of dysury, where its good effects seem to depend on its anodyne and antispasmodic properties, we readily acknowledge that it is an useful medicine. *Fowler's Medical Reports of the effects of Tobacco, principally with regard to its diuretic quality in the cure of dropsies and dysuries, 1785.*

PINUS *Larix*. (See p. 203). The Larch. *Turpentine* (terebinthina) the product of this and other trees of the fir-tribe, stimulates the kidneys very powerfully. It is prescribed in mucous obstructions of the urinary passages, in fluor albus and gleet, and

and in cases of stone and gravel ; in which last, however, it is a doubtful remedy, exciting great irritation, and sometimes inflammation in constitutions that are easily acted upon. It may be given in doses of ten, twenty, or thirty grains, either made into pills with powdered liquorice root, or triturated with almonds and mucilage of gum arabic, so as to form an emulsion. The *Oleum Terebinthinæ* (*Spiritus Terebinthinæ*) is obtained by distilling turpentine with as much water as is necessary to prevent it from burning. Dose fifteen or twenty drops. The *Oleum Terebinthinæ rectificatum*, Ph. Lond. et Ed. is obtained by distilling one part oil of turpentine with four parts water. Dose twenty or thirty drops. The *Resina flava* (Yellow Rosin) is the substance which remains after the distillation of the oil of turpentine from the common turpentine. Formerly it was employed internally in nephritic cases ; but modern practice very properly restricts its use to outward applications. It is the basis of several ointments and cerates and plasters. See Stimulants.

Pinus sylvestris. Class and order the same as the last. Arbor. Indigenous. Scotch Fir. *Pix liquida* (Tar) is obtained by distilling per descensum the wood of this and other species of fir. The

Infusum Picis (Aqua Picea. Tar-Water) is made by steeping tar in water for a day or two. The common proportions are two pounds of tar to a gallon of water ; but a more saturated infusion is required in most cases. It will therefore be better to use the tar in a double proportion, viz. four pounds to a gallon of water. Of this a quarter of a pint, or at most half a pint may be taken twice in twelve hours. The usual swilling mode of exhibiting it is intolerable to most patients. When its operation is assisted by bodily exercise, it promotes the urinary discharge, and is serviceable in cachectic and scorbutic cases ; but the good Bishop of Cloyne has been too enthusiastic in his praises of it. He must have had little experience in the practice of physic, who shall expect half the benefit from it in one half of the disorders in which the philosophical prelate has recommended it. *Berkley's Siris*, 1744.

POLYGALA Senega. (See p. 152). Seneka or Rattle Snake root. The decoction of this root is an useful medicine in dropsies. It may be given in the same manner, and in the same doses, as mentioned under Expectorants. Small quantities of the acetum scillæ may be advantageously conjoined with it.

SAMBUCUS *Ebulus*. Dwarf Elder. See Cathartics.

SCILLA *maritima*. (See p. 152 to 159) Squill. At the pages just referred to, we have treated so fully of this drug and its preparations that we have little further to remark upon it. The *Tinctura Scillæ*, a new preparation in the London pharmacopœia, is a very convenient and active diuretic, far preferable in dropsies to the more nauseous, but more generally used medicine, the oxymel scillæ. It may be added to saline and aromatic vehicles in doses of twenty, forty, or fifty drops.

SINAPIS *nigra*. (See p. 178). Mustard. A table spoonful of the unbruised seeds, given night and morning, sometimes promotes in no inconsiderable degree, the urinary secretion in dropsies. The *Serum lactis Sinapinum* (Mustard-Whey) of the foreign pharmacopœias (which is made by boiling two table spoonfuls of the bruised seed in a pint of milk, and afterwards separating the curds) is useful in the same cases. A quarter of a pint may be drunk twice or thrice in a day. For more on this subject see Stimulants.

SMILAX *Sarsaparilla*. Dioecia. Hexandria. Sarmentaceæ. Frutex. Mexico. Brazil. Peru. (*Sarsaparilla*. Radix). A strong decoction of this

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root

root operates freely by urine. It is frequently prescribed in cutaneous diseases, and in scrophulous, cancerous and venereal cases. The *Decoction Sarsaparillæ*, Ph. Lond. et Ed. is made by boiling six ounces of the sliced root in eight pints of water (in which it has been previously macerated for four hours) till half the water is evaporated. Of this decoction four or six ounces may be given two or three times a day. The *Decoction Sarsaparillæ compositum*, Ph. Lond. consists of Sarsaparilla six ounces, saffrafras, guaiacum shavings, liquorice root, each, one ounce, mezereon, three drams, water ten pints. The Sarsaparilla is macerated with a gentle heat for six hours, and then is boiled with the water till half the quantity is evaporated. The mezeon is added towards the end of the boiling. Dose from four to eight ounces three or four times a day. In the same cases as the last, and especially in the venereal disease, in conjunction with mercury. It stands in place of the *Decoction Lignorum* (Decoction of the Woods) of the former pharmacopœias, and is an imitation of the celebrated *Lisbon Diet-drink* (*Decoction Lusitanicum vel Ulyssiponenſe*) of which Dr. Donald Monro has published an account in the 3d Vol. of the Edinburgh Medical and Literary Essays. For further remarks on this root, see Fordyce's paper in the London Medical Observations and Inquiries, Vol. I. 1757. Bromfield on the
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the English nightshades: Also practical Observations on Corrosive Sublimate and Sarsaparilla, 1757. *Brisbane's Select Cases*, 1772.

SOLANUM Dulcamara. Pentandria. Monogynia. Solanaceæ. Indigenous. (*Dulcamara*. *Stipites*). Bitter Sweet. Woody Nightshade. An infusion or decoction of the stalks and twigs, is a powerful diuretic, which has been given with good effect in cases of humoral asthma and dropsy. It is also serviceable in rheumatic affections, and in diseases of the skin. As it is an active medicine, it is proper to begin with small doses, and to increase them gradually. Two drams of the fresh stalks, chopped small, may be infused in eight ounces of boiling water. Of this infusion, one or two ounces may be given twice or thrice in twelve hours. An infusion is a more certain preparation than a decoction, since by long boiling the active particles of the plant are mostly dissipated. Hence the dried are less operative than the fresh twigs. (*Thesaurus Med.* p. 113 to 115). The extract recommended by the author of the Essay quoted below, is a bad preparation. British practitioners are too neglectful of this vegetable. *Linnaeus* de *Dulcamarâ*, 1753, and in the *Amœnitat. Academ.* Vol. V and IX. *Razoux* sur la Douce Amere in the *Memoires de l'Academie des Sciences de Paris*, 1761. *Kuhn*
Solanum

Solanum Dulcamaram non esse exauctorandum, 1779. *Carrere* Memoire sur la Douce-amere, 1780. *Otto* de usu Dulcamaræ medico, 1784. *Bertrand de la Grefie* Essai sur les dartres, avec des observations qui demontrent l'efficacité de l'extrait de Douce-amere, &c. 1784.

SPARTIUM *Scoparium*. (Genista). Broom.
See Cathartics.

¶ ULMUS *campestris*. Pentandria. Digynia. Scabridæ. Arbor. Indigenous. (Cortex interior). The Elm. In lepra and other cutaneous diseases, a strong decoction of the inner bark has been given by several practitioners with some success. It operates chiefly by urine. It is said to be serviceable in incipient dropsies, but for the generality of such cases, it does not possess sufficient activity. Even in diseases of the skin, we are induced to consider it as inferior to sarsaparilla, guaiacum-shavings, and mezereon. The *Decoctum Ulmi*, Ph. Lond. is made by boiling four ounces of the inner bark in four pints of water down to two pints. Dose, from a quarter to half a pint twice or thrice a day. *Lyttons*, in the Transactions of the London College, Vol. II. *Lettson*, Medical Memoirs. *Banau*, Journal de Paris, 1783.

TO this division belong the following saline substances, which are either wholly, or in part, of vegetable origin.

KALI aëratum. Kali præparatum, Ph. Lond. Lixiva purificata. Lixiva e tartaro, Ph. Ed. Alkali vegetabile fixum. Sal tartari. Sal absinthii. Aërated kali. Prepared kali. Purified lixiva. Fixed vegetable alkali. Purified potash. Salt of tartar. Salt of wormwood. Prepared by dissolving potash or pearl-asbes (Cineres clavellati) in water, evaporating to a pellicle, filtrating and crystallizing; then pouring off the supernatant liquor, and evaporating to dryness. Thus the alkali is freed from the neutral salts and other impurities that were mixed with it before: Or, it is obtained from tartar, by burning that salt in a red heat, dissolving the residuum in water, filtrating and evaporating to dryness. The aerated or mild vegetable alkali operates by urine, in doses of from five to fifteen grains, and is employed with advantage in intermittent fevers, in dropsies, and in cases of stone and gravel. In the first mentioned disorders, it is generally given in combination with aromatics and bitters (*Thesaurus Med.* p. 102); and in the last mentioned cases, the best mode of exhibition is to dissolve it in water, impregnated with fixed air. This is the *Aqua Mephitica Alkalina*, or *Aerated*

ated Solution of Kali (ibid. p. 103). It may be made in the proportion of six or seven grains of the alkaline salt to an ounce of the aerated water, and should be drunk in the quantity of a quarter of a pint, or even half a pint, twice or thrice in a day. *Falconer's Account of the Efficacy of the Aqua Mephitica alkalina in Calculous Disorders* (third edition) 1789.

KALI *acetatum*, Ph. Lond. Lixiva acetata, Ph. Ed. Tartarum regeneratum. Terra foliata tartari. Sal Diureticus. Acetated kali. Acetated lixiva. Regenerated tartar. Diuretic salt. A neutral salt, compounded of the vegetable alkali and acetous acid or vinegar. Operates readily by urine, and is frequently given in fevers, dropies, jaundice, and various visceral and glandular diseases. Dose, from fifteen grains to a dram, or a dram and a half.

KALI *citratum*. Lixiva citrata. Citrated kali. Limoniated kali. Citrated lixiva. Vegetable alkali, saturated with the acid juice of the lemon (*Citrus medica*). This is the basis of the saline mixtures and effervescing draughts of the shops. (*The-saurus Med.* p. 99, 100, 162, 163). About six drams of the juice are requisite for the saturation of half a dram of the prepared kali. Such a quantity,

tity, duly diluted with some aromatic water, may be given for a dose, in the same cases as the acetated kali.

KALI nitratum, Ph. Lond. *Lixiva nitrata*, Ph. Ed. Nitrum. Nitrated kali. Nitrated lixiva. Nitre. Saltpetre. A neutral salt, compounded of the vegetable alkali and the nitrous acid. In moderate doses (viz. from five to fifteen grains) nitre operates by urine and perspiration; in large doses (such as half a dram or two scruples) by stool. It is given with great advantage, dissolved in pure water or in mucilaginous vehicles, such as decoction of barley or almond-milk, in fevers, dropsies, and cutaneous diseases. *Thesaurus Med.* p. 93, 103, 108, 135, 163, 164. For more on this article, see Refrigerants.

TARTARUM purificatum. *Crytalli Tartari*. Purified tartar. Crystals of tartar (see p. 212). This salt has been given with great success to promote a flow of urine in dropsies. Three or four drams of the crystals dissolved in about a pint of water, may be taken, at two or three draughts, every morning, till the disease is removed. This quantity may be increased in some cases, care being taken,

taken, however, that it do not operate too freely by stool. (*Thesaurus Med.* p. 106). In our own practice, we have sometimes prescribed the crystals of tartar triturated to a powder with dried squill, directing the patient to drink about an hour after taking it, some cheese-whey, or juniper tea. In this manner we have given it with the best effect in cases of ascites and anasarca. It has this great advantage over most other diuretics, that it does not (unless it is administered too profusely) leave the body weaker after its operation. Hence we have never found it necessary to give, agreeably to Dr. Home's suggestions, the bark or other tonics after it. Home's Clinical Experiments (second edition) 1782. Ferriar's Medical Histories, Vol. I. & II. 1794, 1795.

Spiritus Ætheris nitrosi, Ph. Lond. et Ed. Spiritus Nitri dulcis. Spirit of nitrous æther. Sweet spirit of nitre. Made by mixing together (cautiously) nitrous acid and rectified spirit of wine, and distilling with a gentle heat. In the London pharmacopœia, the proportions are one part nitrous acid to four parts spirit of wine; in the Edinburgh, one part of the former to three of the latter. In making this preparation, the directions of the Edinburgh college should be followed. Dose, from thirty drops to a dram, in fevers and dropsies.

(3) *From*

(3) *From the Mineral Kingdom.*

AER *vitalis*. Gas oxygenium (see p. 162).
Vital Air. Oxygen Gas. In some hydropic cases, in which this species of air has been inhaled, the quantity of urine seemed to be increased by it. In these disorders it is an useful auxiliary, quickening and enforcing the action of the ordinary diuretics. Alone it is not to be depended upon. See the publications quoted at the page above referred to.

HYDRARGYRUS *muriatus* (see p. 131). Muriated quicksilver. An useful diuretic in tinea, lepra, and other cutaneous diseases. Sometimes prescribed in conjunction with squill and other diuretics in dropsies. (*Thesaurus Med.* p. 101). Concerning the doses and mode of exhibition, see the page above referred to.

NATRON, Ph. Lond. Soda, Ph. Ed. Alkali minerale. The mineral alkali. This is the basis of sea-salt, from which it may be separated by various chemical processes. But for medical purposes, it is best obtained from the ashes of the *Kali spinosum*, called *Barilla*. All that is necessary, is to dissolve the ashes in boiling water, filter and
5 crystallize.

crystallize. This is the *Natron præparatum*, Ph. Lond. and *Soda purificata*, Ph. Ed. It is a valuable medicine in stone and gravel. Dose, ten or fifteen grains twice or thrice in a day. *Theden*, in his Instructions to young Surgeons, published at Berlin in 1774, directs a solution of the salt in lime-water, to be drunk every morning for a fortnight. This may be considered as a solution in pure water, as the fixed air of the natron throws down all the lime from the lime-water. This he found to be surprisingly efficacious in expelling calculous concretions. *Gmelin Apparatus Med.* Vol. I. 1795. But the most convenient mode of exhibition seems to be that recommended by Dr. *Beddoes*, viz. the exsiccated crystals are made into pills with soap or any other suitable medium (*Thesaurus Med.* p. 94). During the use of these pills, the patient should dilute with gruel, juniper-berry tea, or the like. *Beddoes* on the Nature and Cure of Calculus, &c. 1793.

NATRON tartarifatum, Ph. Lond. *Soda tartarifata*, Ph. Ed. *Sal Rupellensis* (see p. 214). Tartarified natron. Tartarified soda. In doses of a dram or two, this is an useful diuretic in calculous cases. Of its use as a laxative, notice has been already taken at the page above referred to.

G. DIAPHORETICS.

G. DIAPHORETICS.

(1) *From the Animal Kingdom.*

AMMONIA, Ph. Lond. et Ed. Alkali Volatile (see p. 172). Volatile Alkali. Whether obtained from sal ammoniac, under the name of *Ammonia preparata*, Ph. Lond. et Ed. or from the horns of the stag (and bones of other animals) under the name of *Sal Cornu Cervi*, Ph. Lond. and *Ammonia ex Ossibus*, Ph. Ed. it is in its essential qualities one and the same. Hence the prepared ammonia and salt of hartshorn may be used indifferently to promote perspiration in low fevers, asthma, palsy, hysteria, gout, &c. Dose of either, from five to fifteen grains. With the same intention, and in the same cases, are given the *Aqua Ammoniacæ*, Ph. Lond. et Ed. (Water of Ammonia) the preparation of which has been already described at the page above referred to ; dose, from thirty to eighty drops ; the *Liquor Volatilis Cornu Cervi*, Ph. Lond. Volatile Liquor of Hartshorn (formerly called Spiritus Cornu Cervi, Spirit of Hartshorn). *Aqua Ammonia ex Ossibus*, Ph. Ed. Water of Ammonia from

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bones ;

bones; dose the same as the last; the *Spiritus Ammoniae*, Ph. Lond. et Ed. Spirit of Ammonia (formerly called *Spiritus Salis Ammoniaci dulcis*, sweet Spirit of Sal Ammoniac) which is prepared by mixing, and afterwards distilling together sal ammoniac (*ammonia muriata*) potash and proof spirit. The potash or fixed alkali unites with the marine acid of the sal ammoniac, and sets at liberty the volatile alkali or ammonia, which passes over into the receiver along with the spirit of wine, in which it remains dissolved; dose, from fifteen to thirty drops; the *Spiritus Ammoniae compositus*, Ph. Lond. *Spiritus Ammoniae aromaticus*, Ph. Ed. Compound Spirit of Ammonia, Aromatic Spirit of Ammonia, see Stimulants; the *Spiritus Ammoniae fetidus*, Ph. Lond. et Ed. Fetid Spirit of Ammonia, see Antispasmodics.

AMMONIA acetata. Aqua ammoniae acetatae, Ph. Lond. et Ed. *Spiritus Mindereri*. Acetated ammonia. Water of acetated ammonia. Mindererus's Spirit. Prepared by saturating ammonia with distilled vinegar. This is frequently employed as a sudorific in rheumatic fevers, catarrhal affections, &c. Camphor, in some cases, and antimonials in others, are advantageously joined with it. Dose, from two drams to half an ounce (*The-saurus Med.* p. 132, 133).

MEL

MEL *acetatum*, Ph. Lond. Oxymel simplex. Acetated honey. Simple oxymel. Made by boiling two parts clarified honey with one part distilled vinegar. Is an useful sudorific in fevers and peripneumonic cases. Dose, half an ounce diluted with thin gruel and a little mint-water.

MOSCHUS. Musk. See Antispasmodics.

SERUM LACTIS *vinosum*. Wine Whey. Made by adding to a pint of milk boiled with half a pint of water, about a quarter of a pint of Rhenish, Madeira, or other white wine. The boiling is continued for about a minute after the addition of the wine. When made with equal parts milk and water, less wine will suffice. The whey, strained from the curds, may be drunk by cupfuls, in febrile disorders.

SERUM LACTIS *sinapinum*. Mustard Whey. Made by boiling bruised mustard-seed with milk (*Thesaurus Med.* p. 289). Is prescribed in the same quantities as the preceding in scorbutic, hydropic, and gouty cases.

(2) From the Vegetable Kingdom.

ACONITUM Napellus. Polyandria. Trigynia. Multifiliquæ. France. Switzerland. Germany. (Herba). Aconite, Monkshood, or Wolf's-bane. The dried leaves of this plant, and an extract prepared from the expressed juice of the recent herb, have been successfully administered in rheumatic and arthritic cases. In these disorders, this herb and its preparations promote perspiration and abate pain. Sometimes they operate by urine. The extract has been advantageously employed in other diseases besides those above-mentioned, viz. in scrophulous, cancerous, and venereal cases. Of the extract, the dose is from half a grain to two or three grains. The dried leaves may be given in the same quantities. By degrees many patients may be brought to bear five or six, or even ten grains at a time. When the extract is kept in a warm place, it seems to undergo a fermentation, by which its virtues are impaired; hence the recent extract is much more powerful than that which has been kept for some months. The dried leaves are more to be depended upon. The extract and leaves may be made into pills with antimony, calomel, camphor,

phor, guaiacum, extract of gentian, and the like, according to the nature of the case (*Thesaurus Med.* p. 121, 122, 141). Some practitioners prefer a tincture of the dried leaves, made by digesting one part aconite in six parts spirit of wine. It is given in the quantity of five or ten drops, gradually increased to forty or more. *Stoerk* libellus quo demonstratur Stramonium, Hyoscyamum, Aconitum non solum tuto posse exhiberi hominibus, verum et ea esse remedia in multis morbis maximè salutifera, 1762. *Reinhold* de Aconito Napello, 1769, and reprinted in the second volume of *Baldinger's* Sylloge. *Collin* Observationes circa morbos, 1772. *Obdelius* in the Transactions of the Swedish Academy for 1776. *Razoux* de Cicuta, Stramonio et Aconito, 1780. *Koelle* Spicelegium de Aconito, 1787.

ARISTOLOCHIA *Serpentaria*. Gynandria. Hexandria. Sarmenaceæ. Virginia. Carolina, and other parts of America. (*Serpentaria Virginiana*. Radix). Virginia Snake-root. The root of this plant is a powerful diaphoretic, frequently resorted to in low putrid fevers, and in obstinate intermittents. As it is a strong stimulant, it ought never to be prescribed where the pulse is full or tense, where there is local inflammation, or where the

primæ viæ have not been previously evacuated. It is given in substance, in decoction, in infusion, and in tincture. Of the powdered root the dose is from fifteen to twenty grains. The decoction is made by boiling two or three drams of the root in ten or twelve ounces of water down to half a pint. The Peruvian bark is frequently boiled with it (*Thesaurus Med.* p. 176, 286). As the active particles of the serpentaria are of a very volatile nature, much of them is lost in the boiling. On this account, an infusion in hot water is a better preparation. In that case the proportions may be half an ounce of the root to ten ounces of water. In the *Tinctura Serpentariæ*, Ph. Lond. the proportions are, three ounces of the root to two pints of proof spirit. This is stronger than the *Tinctura Serpentariæ*, Ph. Ed. which is made with only two ounces of the root to two pounds and a half of the spirit. Dose of the former, one or two drams; of the latter, two or three. These tinctures are frequently added to decoctions of the Peruvian bark, camphor-mixture, &c. *Wedel de Serpentaria Virginiana*, 1710, and for detached observations on this drug, consult the writings of *Sydenham*, *Pringle*, *Lysons*, and *Hillary*.

¶ *ASTRAGALUS exscapus*. Diadelphia. Decandria. Papilionaceæ. Some parts of Germany, and
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in Hungary. (Radix). Stemless Milk Vetch. Within these few years, a decoction of the root of this plant has been cried up as a specific against the venereal disease. Some direct half an ounce of the dried root, cut into small pieces, to be boiled in fifteen ounces of water down to twelve ounces. This quantity is drunk warm morning and evening. Others boil the same quantity of the root in sixteen ounces of water down to eight ounces, to be taken in the same manner. Its principal operation is by the skin. Sometimes it excites a flow of urine. Like many other vegetables that promote the exhalation from the surface of the body, it has been found serviceable in cases of confirmed syphilis; but notwithstanding all the recommendations of the Hungarian professor *Winterl*, and the favourable accounts of the trials of it at the Vienna Hospital, under *Quarin* and others, we do not think that British practitioners will, in venereal cases, be induced to substitute it in place of other substances; whose powers in counteracting, expelling, and destroying the syphilitic virus, are much greater and more certain. Better success may be expected from it in arthritic and rheumatic affections; but even in these disorders, the experience that has hitherto been had of it, is not sufficient to entitle it to be preferred to other diaphoretic vegetables of longer standing and more note. In its general effects, it

coincides with the guaiacum-shavings and mezereum-root ; and though it may be equal, it does not appear to be superior to them. On the whole, therefore, we are inclined to consider it as a superfluous addition to the materia medica. *Quarin Animadversiones practicæ*, 1786. *Endter de Astragalo exscapo*, 1789. *Wegerich de Astragali exscapi radice*, 1789. *Crichton* in the ninth volume of the London Medical Journal. *Tietz de Virtute Astragali exscapi antivenereâ*, 1790. For the observations of *Werner* and *Carminati* on this plant, the reader is referred to the 6th volume of *Murray's Apparatus*.

DAPHNE Mezereum (see p. 115). (Mezereum. Cortex radicis). Mezereon. The cortical part of the root of this shrub, boiled in water, is given with great success in obstinate venereal and rheumatic affections, and in some kinds of glandular obstruction. It operates chiefly by perspiration. The *Decoctum Mezerei*, Ph. Ed. is made by boiling two drams of the rind, or cortical part of the root, and half an ounce of liquorice, in three pints of water to two pints. Of this, from four to eight ounces, are to be given four times a day (*Thesaurus Med.* p. 286, 287). The Mezereon-root is an ingredient in the *Decoctum Sarsaparillæ compositum*, Ph. Lond. (see p. 232). For other observations on this vegetable, see Stimulants. *Russell* in the third volume
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of Medical Observations and Inquiries. *Home's Clinical Experiments* (second edition) 1782.

DORSTENIA Contrajerva. Tetrandria. Monogynia. Scabridæ. Mexico. Peru. West Indies. (*Contrayerva*. Radix). *Contrayerva*. The root of this plant is one of those stimulant diaphoretics that are frequently prescribed with good effect in low putrid fevers, malignant exanthematic diseases, and the advanced and sinking stage of dysentery. It is given in substance in doses of fifteen or twenty-five grains. The *Pulvis Contrayervæ compositus*, Ph. Lond. is made by triturating five parts *contrayerva*-root with eighteen parts of the compound powder of crabs-claws. Dose, from fifteen grains to half a dram. A decoction of this root is employed advantageously with vinegar and other additions (*Fothergill* on the Putrid Sore Throat and *Withering* on the Scarlet Fever) as a gargle in the malignant angina and febris scarlatina. (*Thesaurus Medicaminum*, p. 181). *Wedel* de *Contrayerva*, 1712.

GUAIACUM officinale. Decandria. Monogynia. Gruinales. Arbor. South America and the West-Indies. (Lignum et Gummi-resina) *Guaiacum*. A decoction of the wood or shavings of this tree operates readily by perspiration, and sometimes by urine. It is employed in rheumatic, gouty, scrophulous, and venereal cases; also, in lepra, and
other

other diseases of the skin. The wood is an ingredient in the *Decoctum Sarsaparillæ compositum*, Ph. Lond. (see p. 232) and forms the basis of the *Decoctum Guaiaci compositum*, Ph. Ed. (formerly called *Decoctum Lignorum*) which is made by boiling guaiacum shavings three ounces, raisins two ounces, saffrafras and liquorice-root, each, one ounce, in ten pints of water, till half is evaporated. Dose, four or six ounces, three or four times in a day. The gum-resin is given either in substance, or diffused in water, or dissolved in spirit of wine or in spirit of ammonia. In the first way it is generally prescribed in the form of pills or bolusses (*Thesaurus Med.* p. 131) in doses of fifteen or twenty grains. For diffusing it in water it is triturated with mucilage of gum arabic (*Ibid* p. 136, 137) in the proportion of about twenty grains of the gum guaiacum to every ounce of mint or other distilled water. The solution in spirit of wine is made in the proportion of one part of the gum-resin to two parts, or two parts and a half of rectified spirit, digested together for eight or ten days. Such is the *Tinctura Guaiaci*, Ph. Ed. (formerly called *Elixir Guaiacinum*). Dose, two or three drams. The solution in spirit of ammonia is made by digesting for three days, four ounces of gum-guaiacum in a pint and a half of compound spirit of ammonia. This is the

Tinctura

Tinctura Guaiaci, Ph. Lond. (formerly called *Tinctura Guaiaci Volatilis*.) The *Tinctura Guaiaci Ammoniata*, Ph. Ed. consists of this gum-resin dissolved, in the same proportions, in spirit of ammonia, with the addition of half a dram of oil of saffrafras. Dose, from one to three drams. *Juncker de Morborum medicationibus per Diætam et lignum Guaiacum*, 1624. *Gruner de Specifico antipodagrigo Americano*, 1778. *Ackermen de Guaiaco*, 1782. *Fowler's Reports of the Effects of Blood-letting, Sudorifics, &c. in Rheumatism*, 1795.

LAURUS *Camphora*. Enneandria. Monogynia. Oleraceæ. Arbor. Sumatra, Borneo, Japan, and other parts of the East Indies. (*Camphora*. Substantia resinosa vel oleum essentialiale concretum, ex radice, ramis, et ligno trunci per destillationem elicatum). Camphor or Camphire. This singular substance, which possesses many of the chemical properties of a resin or essential oil, and which is extracted from the root, branches, and wood of the tree by distillation, is frequently and successfully employed to promote perspiration in various acute and chronic diseases, such as fevers, especially of the malignant kind, rheumatism, gout, hysteria, &c. In these cases it has an exhilarating and cordial effect. It is given in doses of five to twenty grains

grains. In larger quantities it operates as a narcotic.

The benefit which has been obtained from the employment of camphor in opposite states of the body, in inflammatory as well as putrid diseases, in small-pox as well as in typhus, in mania as well as in hysteria, in pleurisy as well as in asthma, seems at first very extraordinary ; and has given rise to much controversy among medical writers, of whom some have maintained it to be a sedative and refrigerant, others, on the contrary, a cordial and stimulant. In a synopsis of this kind, which professes to comprize practical matters only, it cannot be expected that we should enter into a detail of the arguments on either side. They will be found in the different treatises quoted at the end of this article. We shall not dismiss the question, however, without remarking, that the apparent contradiction in the use of this drug is easily reconciled, by the reflection, that, in the inflammatory disorders above-mentioned it only affords relief when previous evacuations have been procured, and not even then, unless pain and irritation remain. Thus it is that it sometimes proves serviceable in acute rheumatism, by abating pain; in small-pox attended with convulsions, and in the delirium of inflammatory fevers, by allaying irritation

tion. In these cases it acts as an anodyne and antispasmodic, as well as a sudorific; but it is still the same cordial medicine; otherwise there would be no necessity that blood-letting, purging, and other evacuations should precede its use, or that antimonials and other evacuants should be given in conjunction with it. Yet without one or other of these conditions, we will boldly affirm, that it will always be hurtful in truly inflammatory disorders.

This drug may be prescribed in the form of pills, being previously softened with spirit of wine, and afterwards beat up with mucilage of gum arabic, or some of the conserves; but it is best administered in a state of minute division, and suspension (for it is not a perfect solution) in water, or mucilaginous liquids, as in the *Mistura Camphorata*, Ph. Lond. (formerly called *Julepum e Camphora*) which is made by triturating a drachm of camphor first with a little rectified spirit of wine, and afterwards with half an ounce of white sugar; then gradually adding a pint of boiling water, and straining the whole. An ounce and a half or two ounces of this mixture may be given for a dose. Where this drug is employed as the principal means of cure, it must be given in larger quantities than we find to be contained in the ordinary doses of

of this preparation, since a portion of the camphor here directed is left upon the filtre in straining the mixture. This remark applies equally to the *Emulsio Camphorata*, Ph. Ed. which is made by triturating one scruple of camphor with ten blanched almonds, a dram of fine sugar, and six ounces of water, and then passing the whole through a strainer. When we wish to be certain how much we are giving of this drug, we should incorporate it with aqueous liquors by means of gum arabic, without passing the mixture through a filtre. (*Thesaurus Medicaminum*, p. 283). Concerning the adjuncts to camphor, it may be observed that it is advantageously combined with the volatile alkali and aromatics, in the advanced stages of malignant fevers, and in cases of atonic and irregular gout; with calomel, antimonials, and nitre, in acute rheumatism and other inflammatory fevers; with asafœtida, in hysteria; and with squill and ipecacuanha, in asthmatic complaints. For other remarks on this drug, see Stimulants (where notice is taken of its external application) and Antispasmodics. *Wedel de Camphora*, 1697. *Hoffman de Ufu Camphoræ*, 1717. *Alberti de circumspecto Camphoræ usu*, 1722. *Tralles de virtute Camphoræ refrigerante*, 1734. *Werlhof de Camphoræ usu in febris*, 1735. *De Berger de Camphoræ virtute in febris* in the *Commercium Litterar.* Norimberg, 1735. *Cobausen de*

de Camphoræ usu in pleuritide, 1743. *Carteuser* de insigni Camphoræ activitate medica, 1745. *Rosenstein's* account of the salutary effects of Camphor in a contagious epidemic, in the 6th Volume of the Swedish Transactions, 1751. *Buchner* de præstantia Camphoræ in deliriis, 1763. *Alexander's* Experiments on Camphor in the 57th Volume of the Philosophical Transactions, and also in his Experimental Essays, 1768. *Menghini* de Camphora, in the 3d and 4th Volumes of the Comment. Instituti Bononiensis. *Lyson's* on the effects of Camphor and Calomel in fevers, 1771. *Collin* de Camphoræ viribus in Observat. Med. Par. 3. 1773. *Severi* de Camphora, 1776. *Cullen* Mat. Medica, 1789. References to other treatises will be found under Antispasmodics.

LAURUS Sassafras. Class and Order the same as the last. Arbor. Virginia. Carolina. Florida. (*Sassafras. Lignum, radix, ejusque cortex*). *Sassafras*. A decoction of the wood or chips of the root and young branches of this tree, is frequently employed in scorbutic, rheumatic, and gouty cases, and also in some cutaneous diseases. It operates chiefly by perspiration. This effect, however, it produces in too slight a degree to be trusted to alone. It is therefore generally prescribed in conjunction with
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the guaiacum-wood, and other more powerful diaphoretics. Sassafras is an ingredient in the *Decoctum Sarsaparillæ compositum*, Ph. Lond. (see p. 232) and in the *Decoctum Guaiaci compositum*, Ph. Ed. (see p. 250). As the medicinal particles of this wood are of a volatile nature, many of them are dissipated by long boiling; hence an infusion is preferable to these decoctions. The maceration in this case should be continued for the space of two or three days. The essential oil distilled from the root, *Oleum essentielle radice Sassafras*, Ph. Lond. et Ed. seems to possess no advantages over any of the other aromatic oils. Of the wood and oil it may perhaps be justly said, that they are chiefly indebted to their fragranciness for the place they still hold in the materia medica. There is little doubt that we should combat the disorders in which they are recommended as successfully without them.

POLYGALA Senega. (See p. 152.) Seneka or Rattlesnake-root. The decoction of this root, mentioned at the page above referred to, is an useful medicine in obstinate rheumatic affections; in some instances of which we have known it to bring on perspiration, and thereby abate the pains, and lessen the swelling and stiffness of the joints, after other means had failed. In these cases, camphor and
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sometimes nitre may be advantageously joined with it.

PSYCHOTRIA emetica. (See p. 175). *Ipecacuanha*. In minute doses of half a grain or a grain, this root is frequently employed to promote perspiration in gout, rheumatism, and malignant fevers. With the same intention it is sometimes prescribed in somewhat larger doses, viz: three grains, in dysenteric cases. In arthritic and rheumatic affections it is commonly given in conjunction with opium and vitriolated kali, i. e. under the form of the *Pulvis Ipecacuanhæ compositus*, Ph. Lond. et Ed. as mentioned at p. 177. In like manner, the *Vinum Ipecacuanhæ*, Ph. Lond. et Ed. is employed as a sudorific in the same disorders, in doses of twenty, thirty, or fifty drops.

RHODODENDRON Chrysanthum. Decandria. Monogynia. Bicornes. Frutex. Siberia. (Folia et Ramuli). *Rhododendron*. For the first account of the medicinal properties of this shrub, we are indebted to *Gmelin* and *Pallas*. The leaves and young branches are the parts that are in use. They are boiled or steeped in water. The decoction has a disagreeable smell, and to the taste is rough, bitter, and acrid. When made strong, and taken

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freely

it produces intoxication. *Gmelin* relates in his *Flora Sibirica*, that the inhabitants on the banks of the river *Lena*, who, in their shooting and hunting excursions and in getting the *glacies mariæ* (*Muscovy talc*) are obliged to climb steep and almost inaccessible mountains, have recourse to this decoction to remove violent pains of the knee joints to which they are liable from these occupations. And *Pallas* mentions, in his *Travels* (see also his *Flora Rossica*) that it is a common and successful remedy among some of the Tartar tribes, in arthritic and other painful disorders. They drink it till it brings on some degree of vertigo and confusion of the head, which effects are generally accompanied by a tingling sensation in the parts affected, and an abatement of pain. In consequence of these testimonies in its favor, trials were made of it first in Russia, then in Germany, and afterwards in Sweden, and other parts of the Continent, and also in Scotland. Professor *Kölpin* gave it to fifteen patients, some of whom were gouty, some arthritic, and others affected with chronic rheumatism. In almost all it appeared to afford some relief, and in the majority it removed the complaints. In moderate doses it produced little sensible effect; but when taken in large quantities it brought on nausea, vomiting, purging, transitory disturbance of vision with epiphora, sneezing, tingling in the nose, burning

ing sensation in the throat, tightness across the chest, and in several instances the intoxication or stupefaction before-mentioned. It was found (as might naturally be expected from this account of its operation) to be improper where there was a full pulse with much fever. An infusion of this vegetable was prescribed by Dr. *Home* to three patients in the Edinburgh hospital, but not with the same success. On these experiments it has been remarked, 1st, That in two out of the three cases there was too much fever at the time the infusion was administered; 2ndly, That, even if there had been no fever, the medicine being given in infusion instead of decoction, was not of a proper degree of strength; 3dly, That sufficient time was not allowed for it to produce its full effect, the medicine being left off in two cases out of the three on the fourth day from its first exhibition; and 4thly, That conclusions drawn from so few as three trials only, and under the exceptionable circumstances above-mentioned, can have very little weight. It is worthy of notice, that the patient who took the infusion for the greatest length of time and who seems to have been by far the fittest subject for the experiment, “*was cured by one dose of Dover’s powder,*” given the night after the infusion was laid aside. It is somewhat extraordinary that a case of chronic rheumatism, of more than four months standing, should thus sud-

denly give way to a *single dose* of this powder ! Is it to be inferred that the rhododendron-infusion, which the patient had been taking for ten days before, and which had produced plentiful perspiration, had no share in this salutary change, because it did not happen till the day after the infusion was discontinued ? But supposing the rhododendron to be unequal to the cure of chronic rheumatism, by itself ; yet if, after ten days use, it can render the disease removeable by a single dose of an opiate powder, it surely cannot be regarded as a trifling or inefficacious medicine. The sensible effects of the rhododendron infusion in Dr. *Home's* patients were head-ach, giddiness, drowsiness, nausea, and sometimes purging. In one instance it increased the quantity of urine and brought out copious sweats. Besides the cases above-mentioned, two histories of arthritic patients are related by *Zahn*, in which, after other remedies had been tried in vain, the rhododendron given in decoction, effected a cure. On the whole, therefore, the evidence of those practitioners who have given this plant a fair trial is sufficiently favourable to induce physicians to have recourse to it in such obstinate rheumatic and arthritic affections as resist the guaiacum and other sudorifics. It would be no difficult matter to get a supply of it through Russia and Germany ; and for medical purposes the leaves and twigs are as good, when dried, as they
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are in the recent state. The decoction is prepared and used in the following manner. Put from two drams to half an ounce of the twigs and leaves into a pot, add to them about ten ounces of water, cover the pot over with a close lid, and keep the whole in a state of gentle ebullition for twenty-four hours. Of the strained liquor give an ounce or more, once or twice a day. It is adviseable to begin with a weak decoction at first, and gradually to increase the strength and quantity of the medicine, and frequency of repetition, according to its effects. *Kölpin's Practical Observations on the Use of the Rhododendron* (in the German tongue) 1779. *Home's Clinical Experiments* (second edition) 1782. *Zahn de Rhododendro*, 1783. *Murray's Apparatus Med.* Vol. VI. 1792. *Woodville's Med. Botany*, 1792, Vol. III. p. 404, where it is erroneously remarked, that this plant is not to be found in *Murray's Apparatus Med.*

N.B. It was natural to suppose that other species of the genus *Rhododendron* might possess properties similar, and perhaps not inferior to those of the *Rhododendron Chrysanthum*. Accordingly trials have been made with the *Rhododendron ferrugineum*, a native of the Swiss and Italian Alps, and consequently more easily procured than the Siberian

plant. It appears, however, that the Europæan falls far short of the Asiatic species, in medical efficacy; so that the one cannot properly be substituted for the other.

SAMBUCUS nigra. Pentandria. Trigynia. Dumosæ. Arbor. Indigenous. (Flores et Baccæ). Common Elder. A strong infusion of the flowers is frequently employed by the country people to promote perspiration in colds, catarrhs, and other febrile disorders. The inspissated juice of the berries, the *Succus Baccæ Sambuci spissatus*, Ph. Lond. and *Succus spissatus Baccarum Sambuci*, Ph. Ed. (formerly called *Rob Sambuci*) has the same effect, when dissolved in warm water and taken freely. *Thesaurus Med.* p. 135.

SOLANUM Dulcamara. (See p. 233). Woody Night Shade. Bitter sweet. The decoction of this plant, noticed at the page above referred to, has been used with considerable success, to produce sweats in asthmatic, rheumatic, and venereal cases. Its narcotic quality, joined to its sudorific action, causes it to have a powerful effect in abating the pains in the two last mentioned disorders.

KALI *nitratum* Nitrum. (see p. 237). Nitrated Kali. Nitre. This neutral salt, given in some mucilaginous vehicle in small doses of ten or twelve grains, frequently repeated, operates favourably by perspiration in acute rheumatism, and some other febrile disorders. The present generation, whose moving fibres are more easily acted upon than those of the last and penultimate race, cannot bear this medicine in the large quantities in which it was formerly prescribed by *Sydenham*, and has latterly been given by *Brocklesby*. More than fifteen grains taken at once, generally create disturbance in the stomach and bowels, and have a laxative instead of a diaphoretic effect.

(3) *From the Mineral Kingdom.*

¶ ANTIMONIUM *sulphuratum nativum*. Stibium nativum. Antimonium. Semimetallum. France, Germany. Hungary. (Antimonium crudum). Native Sulphurated Antimony. Native Stibium. Antimony. Crude Antimony. Consists of regulus of antimony and sulphur. Formerly this metallic substance used to be given internally, to promote perspiration, in gouty and rheumatic cases, in cutaneous diseases,

and in glandular obstructions; but on account of its little solubility in the juices of the stomach and bowels, as well as on account of its occasional contamination with other noxious metallic substances, it has been justly laid aside in modern practice; and the more certain artificial preparations of antimony are now universally employed in its place. Dose, from ten to thirty grains and upwards. *Stabl de usu Antimonii crudi, 1730. Juncker de Antimonii crudi usu, 1750.*

In treating of the preparations of antimony we shall rank them under the same chemical divisions, but not exactly in the same order, which we have adopted in our account of the preparations of quicksilver.

(1) To the *sulphurated preparations* of this semi-metal belong the

(a) *Sulphur Antimonii præcipitatum*, Ph. Lond. et Ed. Precipitated Sulphur of Antimony (formerly called *Sulphur auratum Antimonii*, Golden Sulphur of Antimony) (see p. 164) and

(b) The *Kermes minerale*. Mineral Kermes. (see p. 165) both which are used in the same cases as the native sulphurated antimony (crude antimony) but

but in very minute doses, viz. one, two, or three grains.

(2) Of the preparations of this metal obtained by *dry or igneous calcination* (i. e. *calciform preparations*) those which are most in use, and of which we deem it sufficient to make mention, are the

(a) ¶ *ANTIMONIUM vitrifactum*, Ph. Lond. Vitrum Antimonii, Ph. Ed. Vitrified Antimony. Glass of Antimony. It is prepared by first roasting pulverised antimony in a moderate degree of heat, till it ceases to emit fumes, and afterwards putting it into a crucible and subjecting it to a strong heat, till it is brought into fusion, when it is taken from the fire and poured out. This is an imperfect calx of antimony. On account of its uncertain strength and its violent operation, it is never prescribed by itself in modern practice; but it is used for making the

(b) ¶ *Vinum Antimonii*, Ph. Lond. Antimonial Wine, of which we have already given the composition, with animadversions, at p. 179. To what we have there said, we shall here add, that the Vinum antimonii, prepared from glass of antimony, is, in fact, nothing more than a weak or imperfect Vinum antimonii tartarificati, since it is the acid of tartar

tartar alone which is present in the wine that dissolves the vitrified antimony, of which the quantity that is dissolved always varies according to the quality of the wine, i. e. according to the quantity of tartar which it contains. How much better, then, is it first to combine the antimonial calx and tartareous acid together, and afterwards to add the compound to the wine, as is done in the case of the proper *vinum antimonii tartarifati*? a preparation which renders this other totally superfluous. No persons can have more respect for the writings of *Huxham* than we have; yet, when we read the praises which he bestows on his *Essentia Antimonii*, which is an infusion of glass of antimony in white wine (see his *Observationes de Aëre*, and his *Essay on Fevers*) we cannot help suspecting that he never compared its effects with those of the *Vinum Antimonii tartarifati*. We have only to transfer what he says of that to the last mentioned preparation, and all will be right. Glass of Antimony is also used in the preparation of the

(c) ¶ *Vitrum Antimonii ceratum*, Ph. Ed. Cerated Glass of Antimony; which is made by adding eight parts pulverized glass of antimony to one part melted wax, and letting the mixture remain in a gentle heat for a quarter of an hour, stirring it all the while with a spatula. It is then poured out, and when cold, is rubbed to a powder. Dose, from
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three grains to five or six. It is generally prescribed in the form of a powder, triturated with sugar, testaceous substances or magnesia. For many years past this preparation has been regarded almost as a specific in cases of dysentery, diarrhæa, hæmorrhages, &c. yet in these and various febrile disorders in which it has been recommended, it has no just claim to being preferred to other antimonials, since all the good effects that have been obtained from it, may be traced to the nausea or sickness, and concomitant diaphoresis, which it occasions in common with them; but with less certainty, as its doses are not so easily regulated. If we consider this preparation attentively, we shall soon be convinced how little it merits the high commendations that have been bestowed upon it. Is it likely (as a foreign writer has pointedly asked) that the few grains of wax which are contained in the ordinary, or even the largest doses of this medicine, can be of any use in dysentery or diarrhæa? Certainly not. If any benefit is to be expected from wax in these disorders of the bowels, it must be given in the quantity of half a dram, frequently repeated, so that as much as half an ounce may be taken in the course of a day and night. It must not only be given in these quantities, but, if it is to be of any use, it must further be rendered miscible with and soluble in the juices of the primæ viæ, by previous trituration

turation with mucilaginous liquids, otherwise it will pass through the body without producing any effect. Given, then, as it is in the vitrum antimonii ceratum, in the insignificant doses of five or six grains, and without being previously rendered capable of mixing with or dissolving in the juices of the body, the wax in that preparation can have no share whatever in its medicinal operation. The most that can be allowed to it is, that by its tenacious quality and insoluble nature, it, in some measure, defends the vitrified antimony from being acted upon by the gastric and intestinal fluids; but this surely is no desirable thing. On the contrary, it only serves to render the operation of the antimony less certain. As then it appears, that the good effects of the vitrum antimonii ceratum, are wholly referable to the glass of antimony alone, which as an imperfect calx, is less determinate in its operation than some other preparations of this semi-metal; it follows, that it ought in all cases to give way to them, and may consequently be regarded as a superfluous addition to the medical list of antimonial preparations. Viewing it in this light, we were surprised to see it retained in the new Edinburgh pharmacopœia. The London college, with more judgment, have excluded it from their's. Granting that the combination of antimonials with wax, may sometimes be useful in alvine fluxes (though
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we are persuaded, that, generally speaking, where the one is proper the other is not) the best way, indeed the only effectual way, of making that combination, is to add the antimonial (for instance, antimonial wine or tartarised antimony) to an emulsion of wax. When these two substances are thus mixed together in a proper manner, and in due proportions, their doses may be regulated with great exactness, and consequently their operation will be rendered more certain. *Young and Pringle*, in the *Edinburgh Medical Essays and Observations*, Vol. V. and also in the last-mentioned Author's *Diseases of the Army*.

(d) *ANTIMONIUM calcinatum*, Ph. Lond. Antimonium ustum cum nitro, Ph. Ed. Calcined antimony. Antimony calcined with nitre. (*Antimonium diaphoreticum*. *Calx Antimonii*. *Calx Antimonii nitrata*. *Diaphoretic Antimony*. *Calx of Antimony*. *Nitrated Calx of Antimony*). According to the London pharmacopœia, this antimonial calx is obtained by mixing together one part pulverised antimony with three parts powdered nitre, and throwing the mixture little by little into a red-hot crucible. The white substance that remains after the deflagration, is kept in the fire for about half an hour, and is then taken out and suffered

ferred to cool, when it is reduced to powder and washed with distilled water. In the Edinburgh formula, are directed equal parts of antimony roasted for making glass of antimony, and nitre. After being mixed together, they are put into a crucible, and subjected to a red heat for an hour. What remains is then taken out, reduced to powder, and repeatedly washed with hot water till it is deprived of all taste.—Antimony calcined with nitre in the manner above described, was formerly a favourite diaphoretic in febrile disorders, and was given in doses of eight or ten grains. In modern practice it has been superseded by the

(e) *ANTIMONIUM cum Cornu Cervi ustum.* *Antimonium calcareo-phosphoratum*, Ph. Ed. *Pulvis Antimonialis*, Ph. Lond. Antimony calcined with Hartshorn. Calcareo-phosphorated Antimony. Antimonial Powder. According to the London and Edinburgh pharmacopœias, it is made by mixing together equal parts of pulverised antimony and hartshorn (or bone, or ivory) shavings, and putting them into an iron-pan, made red hot, and keeping them constantly stirred, till they are burnt to a grey coloured mass, which is then taken from the fire, rubbed to a powder, and put into a coated crucible, with another crucible (in the bottom of which a small hole has been previously bored) inverted

verted over it, and luted to it. It is then put into the fire, and subjected to a white heat for a couple of hours; after which it is taken out, and when cold, is reduced to a very fine powder. This powder is supposed to be the same, or nearly the same, as *James's* celebrated Fever Powder. (*Pearson* on the Composition of Dr. James's Powder in the *Philosoph. Transact.* for 1791). It seems to hold a middle place between the perfect calces of antimony and the saline preparations of this metal; and in all inflammatory disorders, and especially in fevers, accompanied with a quick, full, and hard pulse, it is certainly the best diaphoretic in the whole materia medica. Like many other valuable medicines, it has sometimes been abused in the hands of inexperienced and undiscerning practitioners, who, by giving it rashly in nervous and putrid fevers, have thereby brought on colliquative sweats and diarrhæa, which have exhausted the patients. From the bias, however, which, within these few years, has been given to the practice of physic in England, it may be safely asserted, that more mischief happens from withholding this and other antimonials in the disorders that might be cured or relieved by them, than from employing them in cases in which they are improper. The antimonial powder is given in doses of from three to eight grains, repeated every

every second, third, or fourth hour. In larger quantities, it operates as an emetic. It has been remarked above, that it coincides in its composition with James's Powder ; yet it does not quite equal it in strength, eight grains of the Pulvis Antimonialis seldom producing greater effect than six grains of James's Powder. It is scarcely necessary to add, that its diaphoretic operation must be assisted by plentiful dilution with tepid, aqueous liquors, such as tea, gruel, chicken-water, or weak wine whey. As it is insoluble in water, it is prescribed either in the simple powdery form, or made into pills or boluses. In rheumatic fevers, camphor or guaiacum are frequently joined with it, and sometimes calomel and opium.

(f) CROCUS Antimonii, Ph. Lond. et Ed. (Crocus metallorum). Crocus of Antimony. Obtained by deflagrating together equal parts of antimony and nitre. According to the London formula, a 25th part of sea-salt is put into the crucible along with the antimony and nitre. This preparation, the strength of which is very variable, is unfit to be given alone internally. It is used for making the Antimonium tartarifatum, Ph. Lond. (see p. 165) and Antimonium muriatum, Ph. Lond. et Ed. (see p. 164). It is matter of surprise that,
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in their late pharmaceutical reform, both the London and Edinburgh colleges should have retained the old alchemical term *Crocus*. Antimonium cum Nitro et Sale muriatico ustum, is a title which readily presents itself, and points out at once the nature of the product.

(3) By *humid* or *acid calcination*, we have the Calx Antimonii præcipitata. Precipitated Calx of Antimony. (Pulvis Algarothi. Mercurius vitæ. Magisterium Antimonii. Algaroth's Powder. Mercury of Life. Magistery of Antimony) which is obtained by adding to a solution of antimony in the muriatic acid (described below) a sufficient quantity of aqua kali or lixivium tartari. The powder which falls to the bottom, after being repeatedly washed with distilled water, is to be dried. It is used in the Edinburgh pharmacopœia, for making the tartarised antimony (see p. 165).

(4) Among the *saline preparations* of this metal, we have to notice the

(a) ANTIMONIUM *muriatum*, Ph. Lond. et Ed. (Antimonium salitum. Stibium salitum. Butyrum Antimonii. Oleum Antimonii corrosivum. Causticum Antimoniale). Muriated Antimony. Salited Antimony. Butter of Antimony. Corro-

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five Oil of Antimony. Antimonial caustic. Consists of calx of antimony and muriatic acid. It is made in the following manner: Take crocus antimonii reduced to powder and vitriolic acid, each, one part, exsiccated sea-salt, two parts. Put the vitriolic acid into a retort, and gradually add to it the sea-salt and crocus antimonii previously mixed together; then distill in a sand-heat. Let that which comes over in the distillation, be exposed to the air for some days; after which pour off the liquid part from the sediment. This is the muriated antimony, which is sometimes applied externally by the surgeons as an escharotic, to destroy warts, fungus flesh, and specks on the cornea; on which occasions, however, it should be used very sparingly, and with the greatest caution. The other purpose to which it is applied, is for making the Calx Antimonii præcipitata, or Pulvis Algarothi above described, by the combination of which with the acid of tartar is obtained, according to the process of the Edinburgh college (see p. 165) the following article, viz. the

(b) *ANTIMONIUM tartarifatum*, Ph. Lond. et Ed. (Tartarum emeticum). Tartarised Antimony. Emetic Tartar. The two different modes of making this preparation, have been already described at p. 165. As a diaphoretic, tartarised
antimony

antimony is given in inflammatory disorders, in the minute doses of a quarter of a grain or half a grain, every third or fourth hour, dissolved in common water, mint-water, or camphor-mixture. In arthritic and rheumatic cases, it is sometimes combined with opiates. But as a diaphoretic, in the divided doses just mentioned, it is not employed so much as the calcareo-phosphorated antimony, on account of its greater tendency to bring on vomiting and purging. For observations on the use of tartarised antimony as an Expectorant, see p. 166, and as an Emetic, p. 178.

(c) *Vinum Antimonii tartarificati*, Ph. Lond. et Ed. Wine of Tartarised Antimony (see p. 179, where is noticed the relative strength of this preparation, as made according to the different proportions assigned in the two British pharmacopœias). As a diaphoretic, this preparation is given in doses of fifteen, thirty, or forty drops, in inflammatory fevers, in pleurisy, peripneumony, rheumatism, dysentery, catarrh, and all those disorders in which the Antimonial Powder (see p. 271) is employed. What *Huxham* has said of his antimonial wine, may be said of this, viz. that it is an admirable attenuant, deobstruent, and diaphoretic, being capable of pervading and affecting the very minutest vessels, quickly

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acting and quickly passing off, and having a great advantage (in the inflammatory diseases above-mentioned) over other medicines which promote perspiration, in not producing, as they do, a heating effect. *Nilil utique ad sudores excitandos datur aptius, nilil tutius; nam parum admodum excalefacit.* So far we entirely agree with the Author of the *Observationes de Aere et Morbis Epidemicis*; but the remark which follows (*viz. unde in ipsis febribus lentis adhibetur optimè*) should be received, we think, with some limitation. This great physician never could mean that his antimonial wine, or any other antimonial preparation, is proper in all degrees and stages of slow fevers. He must have had in view the beginning of these fevers, before great debility comes on.

For general observations on antimonials, the following authors may be consulted. *Basil Valentini Currus triumphalis Antimonii*, 1624. *Camerarius de Antimonio*, 1735. *Huxham's Medical and Chemical Observations upon Antimony*, 1756. *Buchner de Antimonio ejusque Tincturis*, 1767. *Saunders' Observations on Antimony and its Use in the Cure of Diseases*, 1773. *Ackerman de præcipuo Antimonii Ufu Med.* 1785; and *Black's Table of the Preparations of Antimony in Duncan's New Dispensatory.*

AQUA

AQUA tepida vel calida. *Warm or hot Water* promotes perspiration in a powerful manner, not only when taken into the stomach, but also when applied outwardly to the surface of the body. Hence, copious draughts of pure water, heated to the temperature of 96, 100, 110, or 112 of Fahrenheit's thermometer, will often suffice, in cases of cephalalgia, rheumatism, and arthritis, to restore the suppressed evacuation by the skin, and to remove those complaints. In the same manner it is of great use in cases of surfeit and indigestion.

Without the joint employment of hot-water along with them, the various medicines of this order could not produce their full effect. It is their best auxiliary, indeed the only medium by which they are brought into action. Let young practitioners, then, when they prescribe antimonials, camphor, guaiacum, and other diaphoretics, always keep in mind the necessity of assisting their operation by the free use either of warm water alone, or of warm aqueous liquors, such as infusions of balm or tea, or mucilaginous decoctions, such as barley-water, gruel, and the like. Inattention to this point, is a frequent cause of the unsuccessful treatment of acute diseases.

Warm or hot water is applied to the body externally, to promote perspiration, in rheumatism, gout, palsy, and some other disorders. In these cases, a part, or the whole of the body, is immersed in the water, and kept therein for the space of ten, twenty, or thirty minutes. The higher the temperature of the water, the shorter the time of immersion. According as the bath is partial or general, it receives a different name. Thus, when the hands only are bathed, it is termed a *Manuluvium*; the feet only, a *Pediluvium*; when half the body is immersed, it is termed a *Semicupium*; and when the whole body, *Balneum*. For the *Stillicidium*, or Shower Bath (*Douche* of the French) hot water is rarely employed. When, instead of being plunged in hot water, the body is exposed to the steam that arises from it, such an application is called a Vapour Bath, *Balneum vaporosum*, or *Balneum vaporis*. This species of bath has lately come into great repute. Indeed, it is obvious, that the particles of water divided and subtilized by conversion into steam, must act with greater effect than water in its natural dense state. Accordingly it has been found, that rheumatic, paralytic, and several other chronic complaints, yield sooner under this application, than they are wont to do under the use of the common water-bath. There are
various

various modes of applying the steam; but the simplest and most convenient seems to be, a wooden box or case, inclosing the body all but the head, and furnished with a seat, on which the patient may sit. The vapour is introduced at the bottom, which is perforated for the purpose. This vapour may either come from boiling water alone, or from water impregnated with aromatic herbs and drugs. The first is termed the common vapour-bath; the other, the medicated vapour-bath. (*Simmons* Observations on Vapour-bathing, 1766. *Denman's* Letter to Dr. R. Huck, on the Construction and Method of using Vapour-Baths, 1769. *Sanctés* sur les Bains de Vapeur in the Mémoires de la Soc. Roy. de Medecine, Tom. III. 1779. *Marcard* on Vapour-Baths in the second Part of his Med. Essays (in the German tongue) 1778. *Doppet* sur la Maniere d'administrer les Bains de Vapeur, 1790).

What is called a *tepid bath* (*balneum tepidum*) is of the temperature of from eighty to ninety in Fahrenheit's thermometer. The *Bristol* spring (*Thermæ Bristolienses*) is of the temperature of 84, and the *Buxton* (*Thermæ Buxtonienses*) of the temperature of 81 or 82. What is called a *hot-bath* (*balneum calidum*) is of a temperature not

below 96. It may be raised with advantage in many cases to 100, 110, or 112. The natural heat of the mineral springs at *Bath* (*Thermæ Bathonienses*) exceeds the last-mentioned temperature by several degrees, being from 114 to 116. Some of the hot springs in Germany, and other parts of the Continent, raise the mercury in the thermometer a few degrees higher.

Like the vapour-bath, the hot-water bath is either simple or medicated; i. e. it consists of either pure water, or of water impregnated with vegetable or mineral substances, such as aromatic herbs and gums, sea-salt, *hepar sulphuris*, &c. According to the nature of the disease the impregnations are varied. By the saline and sulphureous additions just mentioned, we imitate the hot mineral springs of *Aix la Chapelle* (*Thermæ Aquisgranenses*) in Germany, *Barege* (*Thermæ Baregienses*) in France, *Carlsbad* (*Thermæ Carolinæ*) in Bohemia, and *Pisa* (*Thermæ Pisanæ vel Pisenses*) in Italy. *Floyer* on Hot and Cold Bathing, &c. 1715. *Hoffman* de Balneorum ex Aquâ dulci præstantissimo in Affectibus internis Ufu, 1721. *Vallisneri* del Ufu é del Abuso delle Bagnature calde o fredde, 1725. *Marteau* Traité théorique et pratique des Bains, 1770. *Macquart* Manuel

Manuel sur les Propriétés de l'Eau, principalement dans l'Art de guérir, 1783. *Marcard* on the Nature and Use of Baths (in the German tongue) 1793. For more remarks on Hot-Bathing, see Stimulants.

SULPHUR. Brimstone. Sulphur. Although this mineral substance does not appear to be soluble in the juices of the stomach, yet its particles are of so subtile and diffusible a nature, that they are readily taken up by the absorbents, and conveyed into the circulation, penetrating and spreading through the whole system. Hence they manifest themselves by their peculiar smell and other qualities in all the secretions and excretions, and especially in the perspirable matter, which is thereby increased and acquires the property of tarnishing silver and other metals that are carried about the persons of those who are taking sulphur. It is in consequence of this power which it possesses of promoting perspiration, that it proves a valuable medicine in some cutaneous diseases, in rheumatic and gouty cases, in chronic catarrhs, and in some kinds of asthma (See p. 169). In like manner it is very efficacious in checking the action of mercurials on the salivary glands; and for this purpose it is often employ-

employed against ptyalism brought on by the too liberal exhibition of quicksilver, and also against the paralytic tremors to which miners, metallurgists and certain manufacturers are subject, in consequence of being exposed to mercurial and arsenical effluvia.

As the operation of sulphur is attended with some degree of irritation, and an increase of bodily heat, it seldom suits where there is much febrile condition, or an inflammatory tendency. Under these circumstances, however, it may sometimes be made to agree by joining antimonials with it. Another useful adjunct to it in arthritic and rheumatic cases, is guaiacum. With these admixtures it may be given in the form of powder or pills (*Quarin Animadversiones practicæ*, 1786). Half a dram of sulphur taken in a little milk, every day upon an empty stomach, is, according to *Cheyne* (*Essay on the true nature of the Gout*, 1728) an excellent preventive of the gout. The officinal preparations entitled *Flores sulphuris loti* and *Sulphur præcipitatum*, have been already described at p. 169. The usual doses of these preparations as diaphoretics, are from twelve grains to a scruple or half a dram. As laxatives they are given in much larger doses. See p. 219.

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By chemical combination with alkalies, whether fixed or volatile, the diaphoretic tendency of sulphur is much increased. Hence the *Ammonia sulphurata* and *Kali sulphuratum*, operate more powerfully by the skin than sulphur alone. The combination with the fixed alkali, called

KALI sulphuratum. (Hepar sulphuris vulgare). Sulphurated kali. Common Liver of Sulphur, has been already noticed at p. 170. To what is there said we shall now add, that we have found it useful not only in the disorders there mentioned, but also in arthritic and rheumatic cases, in doses of two or three grains made into pills with soap, and repeated every third or fourth hour, with a draught of camphor-mixture, pepper-mint water, or ginger tea. We have moreover prescribed it with advantage in larger doses, combined with extract of cicuta, in a case of cancer. The cicuta had been given by itself for some weeks before and had almost ceased, even in large quantities, to produce any effect; but on combining the sulphurated kali with it in doses of five grains, the patient experienced considerable relief. This will induce us to have recourse to it again in other instances of this dreadful disease; and we recommend it to others. Pure sulphur possesses, as before mentioned,

tioned, a power of counter-acting the effects of quicksilver and other metallic substances, on the human body; but this power is much greater in the kali sulphuratum. Hence the use of this preparation in salivations brought on by the abuse of mercury, and in the disorders occasioned by lead, arsenic, &c. (*Navier Contre-poisons de l'Arsefic, du Sublimé Corrosif et du Plomb. 1777*). The combination of sulphur with the volatile alkali, which we shall call

AMMONIA sulphurata (Hepar sulphuris volatile. Spiritus fumans *Boylei*. Spiritus fumans Sulphuratus *Beguini*. Tinctura Sulphuris volatilis) Sulphurated ammonia, Volatile Liver of Sulphur, *Boyle's* Smoking Spirit, *Beguin's* Smoking Spirit of Sulphur, Volatile Tincture of Sulphur, is made in various ways. The simplest method is to digest, without heat, one part flowers of sulphur with five parts water of pure ammonia. In this way, however, the sulphur is dissolved very slowly and very sparingly. A much stronger hepar is obtained by distilling together one part sulphur, an equal quantity of sal ammoniac, and 1 part 1-5th of quicklime (*Boyle Experiments on Colours, 1675*) or from one part flowers of sulphur, two parts sal ammoniac, and three parts quicklime (*Hoffman Observationes physico-chemicæ, 1736*) or, according
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to others, six parts quicklime to the last-mentioned proportions of the other materials. In *Fourcroy's* Chemistry, the following proportions are given: Quicklime and sal ammoniac, equal quantities, and half as much sulphur. In all these distillations, a little distilled water is put into the retort along with the materials. In these processes, the muriatic acid of the sal ammoniac seizes the quicklime and lets go the volatile alkali, which rises up along with the sulphur, unites with it, and passes over so combined into the receiver. This sulphurated ammonia is always in a liquid state. It possesses the same general properties as the sulphurated kali, and may be given in the same cases. It is proper, however, to notice, that it has a much stronger and more immediate effect upon the human body than the common hepar, and therefore requires more caution in the use of it. From two to five drops make a sufficient dose for grown up persons.—For general remarks on sulphur the reader may consult *Detbarding de Sulphure præstantissimo bezoardico*, 1746. *Reisig de Sulphuris Ufu interno*, 1768, and reprinted in *Baldinger's Sylloge*. On the external use of Sulphur, see *Heteroclites*.

Like the common hepar sulphuris, the *Sulphurous Waters* of Keddlestone, in Derbyshire, of Rippon
and

and Harrowgate, in Yorkshire, of Sutton Bog, in Oxfordshire, of Moffat, in Scotland, &c. when taken in the small quantity of a quarter of a pint once or twice a day promote perspiration and urine; and hence are serviceable in diseases of the skin. In larger doses they are purgative.

H. EMMENAGOGUES

H. EMMENAGOGUES.

(1) *From the Animal Kingdom.*

AMMONIA præparata. Prepared ammonia or Volatile Alkali (see p. 241). Is sometimes given, in the doses mentioned at the page just referred to, in cases of amenorrhæa. It is chiefly used as an adjunct to bitters and other emmenagogues.

CASTOREUM. Castor. See Antispasmodics.

(2) *From the Vegetable Kingdom.*

ALOE perfoliata. Aloes. (See p. 184). As an Emmenagogue, this drug is given in doses of from three to ten grains. Besides the preparations of aloes, mentioned at the page above referred to, the following especially belong to this place; viz. the *Pulvis Aloës cum Ferro*, Ph. Lond. which consists of Aloes one part and a half, myrrh two parts, extract of gentian and vitriolated iron, each, one part.

Dose,

Dose, from fifteen to thirty grains; the *Pilulæ Aloes cum Myrrha*, Ph. Lond. (formerly called *Pilulæ Rufi*) which consist of aloes two parts, myrrh and saffron each, one part, beat up with a sufficient quantity of syrup of saffron. Dose, from eight to fifteen grains. The *Pilulæ Aloes cum Myrrha*, Ph. Ed. consist of aloes and myrrh in the same proportions as in the formula of the London College, but with only half the quantity of saffron. They are beaten into a mass with simple syrup. In consequence of containing less saffron, the Edinburgh pills are stronger than the London. Dose, from five to ten or twelve grains. The *Tinctura Aloës composita*, Ph. Lond. (formerly called Elixir Aloës) is made by dissolving socotorine, aloes and saffron, each, three ounces, in two pints of tincture of myrrh. Dose, a tea spoonful. The *Tinctura Aloës cum Myrrha*, Ph. Ed. (formerly called Elixir Proprietatis) is made by digesting two ounces of myrrh in rectified spirit of wine and proof spirit of wine, each, one pound, for the space of four days, and then adding aloes, one ounce and a half, saffron, one ounce, and digesting again for two days. Dose, from two drams to half an ounce. The *Tinctura Aloës Vitriolata*, Ph. Ed. (formerly called Elixir Proprietatis Vitriolicum) is made by taking myrrh and aloes, each, one ounce and a half, saffron one ounce; and after digesting the myrrh in one pound of spirit of vitriolic æther for the space of

of four days, in a close vessel, adding the aloes and saffron, and digesting again for four days more. Dose, one or two drams.

AMMONIACUM. Gum Ammoniacum. (See p. 141). As an emmenagogue, dose from ten to twenty grains, or more. Seldom given with this intention by itself; but advantageously joined with aloes, extract of gentian, myrrh, asafoetida, and the like.

ANTHEMIS *nobilis*. Chamomile. Chamæmelum. (See p. 173.) The infusion and extract of the flowers of this herb are useful in cases of obstructed menses. Dose of the *Extractum Chamæmeli*, Ph. Lond. et Ed. fifteen grains or a scruple. The ferrum vitriolatum, and other chalybeates, are frequently joined with it, as well as myrrh.

BUBON *Galbanum*. Pentandria. Digynia. Umbellatæ. Frutex. Africa. (Galbanum. Gummi-resina). The juice which flows from the wounded stem, inspissated and concreted by the heat of the sun. This gum-resin stimulates the intestinal canal and the uterine system much more powerfully than the ammoniacum. It is more laxative than myrrh, but less so than aloes. It is

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not only useful in promoting the catamenia, but is likewise suited to remove those nervous and hysterical symptoms which often precede and accompany irregular and deficient menstruation. Dose, from twelve to twenty grains. The *Tinctura Galbani*, Ph. Lond. is made in the proportion of one ounce of the gum-resin to one pint of proof spirit, digested together for eight days. Dose, a dram. The *Pilulæ Galbani compositæ*, Ph. Lond. (formerly called *Pilulæ Gummosæ*) consist of galbanum, opopanax, myrrh, sagapenum, each, one ounce, asafœtida half an ounce, beat up with syrup of saffron. Dose, from fifteen grains to half a dram or two scruples. This formula is too compound. The opopanax and sagapenum might be very well dispensed with. In the *Pilulæ Asafœtidæ compositæ*, Ph. Ed. (also called *Pilulæ Gummosæ*) we have a more simple, and at the same time a more efficacious formula. These pills consist of galbanum, asafœtida, and myrrh, each, one ounce, rectified oil of amber one dram, beat up with simple syrup. They are stronger than the galbanum pills of the London pharmacopœia; hence from fifteen to twenty grains make a sufficient dose. Galbanum is an ingredient in the *Emplastrum Lithargyri compositum*, Ph. Lond. (formerly called *Emplastrum commune cum gummi*) and in the
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the *Emplastrum Gummosum*, Ph. Ed. See Antispasmodics.

FERULA, *asafætida*. (See p. 145). Asafœtida.

This warm, stimulating gum-resin holds almost the first place amongst emmenagogue medicines. It is given in doses of ten or twenty grains, made up into pills with myrrh, ammoniacum, and bitter extracts. It is an ingredient in the *Pilula Galbani compositæ*, Ph. Lond. above mentioned, and the *Pilula Asæfætidiæ compositæ*, Ph. Ed. of which the composition has just been described in the preceding article. The *Tinctura Asæfætidiæ*, Ph. Lond. (formerly called *Tinctura Fœtida*) is made in the proportion of two ounces of the gum-resin to one pint of rectified spirit, digested for six days. Dose, one or two drams. The *Tinctura Asæfætidiæ*, Ph. Ed. (also called *Tinctura Fœtida*) is made in the proportion of four ounces of asafœtida to two pounds and a half of rectified spirit, digested for the same length of time. Dose, the same. The *Spiritus Ammoniacæ fœtidus*, Ph. Lond. (formerly called *Spiritus Volatilis fœtidus*) is made by mixing together proof spirit six pints, sal ammoniac one pound, asafœtida four ounces, pot-ash one pound and a half, and with a gentle heat distilling off five pints. In this process the sal ammoniac

undergoes a decomposition. Its basis, the muriatic acid, unites with the pot-ash, and lets go the ammonia or volatile alkali, which rises up and passes over into the receiver along with the spirit of wine impregnated with the asafœtida. Dose, from fifteen to thirty or forty drops. The *Spiritus Ammoniae fetidus*, Ph. Ed. (also called *Spiritus Volatilis foetidus*) is made simply by digesting in a close vessel for twelve hours, half an ounce of asafœtida in eight ounces of spirit of ammonia, and afterwards distilling off eight ounces, in the heat of boiling water. Dose, from fifteen to thirty drops.

HELLEBORUS niger. (See p. 200.) Black Hellebore. The extract and tincture of this plant, are given as emmenagogues in the doses mentioned at the page above referred to. The last mentioned preparation, viz. the *Tinctura Hellebori nigri* (*Tinctura Melampodii*) was a favourite medicine with *Mead* (*Monita et Præcepta Medica*, Tom. II. Cap. xix. cum notis *Wintringham*, 1773). He gave it in the quantity of a tea spoonful twice a day. Since his time other practitioners have not employed it with the same success. *Thesaurus Med.* p. 147.

JUNIPERUS Sabina. Diæcia. Monadelphia. Coniferæ. Frutex. Siberia. Tartary. (Sabina. Folia). Savin. Along with its stimulating and heating property, this plant possesses a great degree of acrimony, on which account considerable caution is required in the use of it. The dried leaves are prescribed in doses of ten or fifteen grains twice a day, in those cases of amenorrhæa in which there is a languid circulation, joined with irritability. The *Extractum Sabinae*, Ph. Lond. may be given in the quantity of five or ten grains. The dried leaves are an ingredient in the *Pulvis Myrrhæ compositus*, Ph. Lond. which consists of equal parts of myrrh, savin, rue, and castor. Dose, fifteen or twenty grains. The *Tinctura Sabinae composita*, Ph. Lond. (formerly called Elixir Myrrhæ compositum) is made by dissolving one ounce of extract of savin in one pint of tincture of castor, and half a pint of tincture of myrrh. Dose, forty or fifty drops. *Wedel de Sabina*, 1707.

MARRUBIUM vulgare. Didynamia. Gymnospermia. Verticillatæ. Indigenous. (Marrubium album. Herba). Horehound. An infusion of the herb coincides both in its sensible qualities and in its medicinal effects with chamomile-tea.

MYRRHA (see p. 147). Myrrh. Although this drug, when given by itself, is not powerful enough to remove obstructions of the menses, even in doses of half a dram or more; yet, when added to other emmenagogues, it promotes their operation; and hence in these cases is of considerable use.—The following preparations, employed as emmenagogues, in which this gum-resin is an ingredient, have been noticed at the places respectively referred to; viz. the *Pulvis Myrrhæ compositus*, Ph. Lond. at p. 293; the *Pulvis Aloës cum Ferro*, Ph. Lond. at p. 287; the *Pilulæ Aloës cum Myrrhæ*, Ph. Lond. at p. 288; the *Pilulæ Aloeticæ*, Ph. Ed. at p. 186; the *Pilulæ Galbani compositæ*, Ph. Lond. at p. 290; the *Pilulæ Asæfætidæ compositæ*, Ph. Ed. at p. 290; the *Tinctura Aloës composita*, Ph. Lond. at p. 288; the *Tinctura Aloës cum Myrrhæ*, Ph. Ed. *ibid*; and the *Tinctura Aloës vitriolata*, Ph. Ed. *ibid*.—The *Tinctura Myrrhæ*, Ph. Lond. is made by digesting for eight days three ounces of myrrh in proof spirit a pint and a half, and rectified spirit half a pint. The *Tinctura Myrrhæ*, Ph. Ed. is made by digesting for ten days three ounces of myrrh in two pounds and a half of rectified spirit. These tinctures are sometimes given internally in doses of forty drops or a dram; but they are chiefly

chiefly employed in topical applications, such as lotions and gargles. See Antiseptics.

¶ *PASTINACA Opopanax*. Pentandria. Digynia. Umbellatæ. Italy, Sicily, and the Southern parts of France. (*Opopanax. Gummi-resina*). *Opopanax*. This gum-resin coincides in its general properties with ammoniacum; and where this last, and myrrh, can be procured, it is totally superfluous.

RHEUM palmatum. (See p. 205). *Rhabarbarum*. Rhubarb. This root may be given with advantage in small doses of five or six grains joined with an equal quantity of vitriolated kali, twice a day for a week before the expected return of the menses, in cases of amenorrhæa. Three grains of vitriolated iron may also be added to it if it purges. The *Pilulæ Rhei compositæ*, Ph. Ed. (called also *Pilulæ stomachicæ*) are a useful medicine in the above-mentioned cases. They consist of rhubarb eight parts, aloes six parts, myrrh four parts, vitriolated lixiva (vitriolated kali) one part, essential oil of mint 1-38th part, beat together with syrup of orange-peel. Dose, twenty or thirty grains.

ROSMARINUS officinalis (see p. 112). Rosemary. An infusion of the sprigs is slightly emmenagogue.

RUBIA tinctorum. Tetrandria. Monogynia. Stellatæ, Southern parts of Europe, and by cultivation in

some of the Northern parts. (Radix). Madder. The clinical experiments instituted at the Edinburgh hospital, under the direction of Dr. *Home*, have lately brought into notice the root of this plant, as an emmenagogue. The physician just mentioned informs us (Clinical Experiments and Histories, p. 422) that it was what *Tournefort* has said of this vegetable in his *Materia Medica*, that induced him to give it a trial; but long before the French botanist made his remarks upon it, the rubia tinctorum had been prescribed by *Fonseca* in obstructions of the menses. This practitioner gave a large dose of the powdered root at the period when the catamenia should appear; and if this did not succeed, he repeated it again the next month, and so on until the desired effect was produced. In this mode of exhibition the intervals of repetition were too distant. It is certainly better to give it as Dr. *Home* directs, in less doses, such as half a dram, three or four times in the space of twelve or sixteen hours. But even when administered in this manner, it disappointed the expectations of *Cullen* (Mat. Med. Vol. II). *Selle* (New Contributions or Observations relative to Natural History and Medicine, in the German tongue, 1782) and *Herz* (Letters to Physicians, likewise in the German tongue, second Volume, 1784). However, the last mentioned author, Dr. *Herz*, remarks that, although he has not found this

this root powerful enough for removing obstinate obstructions and suppressions of the catamenia, yet he has prescribed an infusion of it with good effect in cases of deficient and difficult menstruation. The practitioners above-mentioned, have generally employed this drug without joining any other medicine with it ; but some of the neutral salts, such as the vitriolated kali, seem to be useful auxiliaries. *Vogler's* (*Pharmaca selecta observationibus clinicis comprobata*, 1788) hæmagogue powder, consists of equal parts of madder-root, vitriolated kali, and flowers of sulphur. Of this he gives fifteen or twenty grains three or four times a day, in cases of amenorrhæa, and as he assures us with great success. Yet, after all, is madder, as an emmenagogue, superior to rhubarb ? It is less purgative than the latter ; but in its other effects upon the human body, it coincides with it pretty exactly ; and we have reason to believe, that rhubarb given in smaller doses, and combined in the manner above-mentioned with vitriolated kali, is equally efficacious in promoting the periodical discharge of blood from the uterus.

¶ *RUTA graveolens*. Decandria. Monogynia. Multifiliquæ. Southern parts of Europe. (Herba). An infusion of this herb in water, is recommended by some old authors in cases of amenorrhæa ; but
strong

strong chamomile-tea may at all times supply the place of such an infusion. The same may be said of the *Extractum Rutæ*, Ph. Lond. et Ed. which is totally superfluous where the *Extractum Chamæmeli* is to be procured.

¶ SAGAPENUM. Gummi-resina. Sagapenum. Between this gum-resin and asafœtida, there is a great affinity. The latter, however, is the strongest; so that where it can be procured, the sagapenum may be dispensed with. Dose, from fifteen grains to half a dram. It is an ingredient in the *Pilulæ Galbani Compositæ*, Ph. Lond.

(3) *From the Mineral Kingdom.*

FERRUM. Mars. Iron. For general remarks on the medicinal properties of this metal, the reader is referred to the class of Tonics. In this place we have only to notice, that, in those cases of amenorrhæa, in which there is a weak, languid, leucophlegmatic habit of body, chalybeates have been employed with great advantage, and have frequently brought about the menstrual evacuation, after other emmenagogues had been tried in vain. For
this

this purpose, iron has been employed sometimes (1) in its *reguline* state ; sometimes (2) in the state of a *calx* ; and sometimes (3) in a *saline* state.

(1) The *Ferri limatura purificata*, Ph. Ed. is iron in its *reguline* state. The iron-filings are purified by drawing them upwards through a sieve with a magnet. Dose, from five grains to half a dram, made into pills with myrrh, ammoniacum, or some of the bitter extracts.

(2) The officinal *calciform preparations* of iron, are the *Ferri rubigo*, Ph. Lond. et Ed. (Rust of Iron). It is made by repeatedly moistening iron-filings, and exposing them to the air till they are converted into rust, which is rubbed in a mortar to a fine powder. Dose, the same as that of the filings. And the ¶ *Ferrum vitriolatum ustum*, Ph. Ed. (formerly called Colcothar Vitrioli) which is made by urging exsiccated vitriolated iron in a strong fire, till it becomes of a deep red colour. It may be given in the same doses as the rubigo ferri ; and as it coincides with it in its effects upon the human body, it may be regarded as a superfluous preparation. It is employed by the Edinburgh college for making the ferrum ammoniatum ; but the rubigo ferri would answer that purpose equally well.

(3) Among

(3) Among the *saline preparations* of iron, are to be mentioned the

(a) *FERRUM ammoniacale*, Ph. Lond. *Ferrum ammoniatum*, Ph. Ed. (formerly called *Flores martiales*). Made according to the London pharmacopœia, by mixing together one part iron-filings with two parts sal ammoniac, and subjecting to sublimation. According to the Edinburgh formula, it is made by mixing together equal weights of the *ferrum vitriolatum ustum* and sal ammoniac, and subjecting to distillation. Of either preparation, the dose is from five to twelve grains. This may be considered as a triple salt, consisting of calx or earth of iron, muriatic acid, and volatile alkali. In the London pharmacopœia, a tincture, entitled *Tinctura Ferri Ammoniacalis*, is prepared from it, by dissolving one ounce of this salt in four ounces of proof spirit. Dose, thirty or forty drops. This is the *Tinctura martis aperitiva Mynsichti*.

(b) *FERRUM tartarizatum*, Ph. Lond. *Tartarised Iron*. Consists of calx or earth of iron and acid of tartar. Is made by mixing together into a thick paste, by means of a little distilled water, one part iron-filings and two parts crystals of tartar, and exposing the mixture to the air for eight days in an open vessel,

vessel, and afterwards drying the same and reducing it to a fine powder. Dose, ten or fifteen grains.

(c) *FERRUM vitriolatum*, Ph. Lond. et Ed. Sal Martis. Sal Chalybis. Vitriolum Ferri. Vitriolum Martis. Vitriolum viride. Vitriolated Iron. Salt of Steel. Vitriol of Iron. Martial Vitriol. Green Vitriol. Consists of calx or earth of iron and vitriolic acid. This chalybeate salt is successfully employed in cases of amenorrhæa depending upon or connected with diminished energy of the sanguiferous vessels. It is given in doses of from one to five grains, in conjunction with myrrh, rhubarb, ammoniacum, aloes, or bitter extracts.

(d) The *Tinctura Ferri muriati*, Ph. Lond. et Ed. Tincture of Muriated Iron (formerly called *Tinctura Martis* and *Tinctura Martis in Spiritu Salis*) is made, according to the London pharmacopœia, by adding three pounds of muriatic acid to half a pound of rust of iron, and letting them remain together (stirring them every now and then) for three days, and afterwards pouring off the liquor from the sediment. This liquor is evaporated to one pound, and, when cold, is gradually mixed with three pints of rectified spirit of wine. According to the Edinburgh pharmacopœia, it is
made

made by taking three ounces of the scales of iron, reduced to a powder, and as much muriatic acid as, with the help of a gentle heat, is sufficient for dissolving the same; and adding, when the powder is dissolved, so much rectified spirit of wine as shall make the whole of the liquor to amount to two pounds and a half. Of these tinctures, the dose is from ten to fifteen drops.

(e) The ¶ *Vinum Ferri*, Ph. Lond. Steel Wine (formerly called *Vinum Chalybeatum*) is made by digesting for the space of a month, one ounce of iron-filings in one pint of Spanish white wine. Dose, from a tea spoonful to a table spoonful. This may be considered as a weak solution of tartarised iron; since it is the acid of tartar contained in the wine that dissolves a portion of the iron-filings. In point of strength, it is an uncertain preparation, varying according to the age and quality of the wine. Hence, it is better to prescribe, in place of it, a given quantity of the *ferrum tartarifatum*, which may be more conveniently added to most forms of extemporaneous composition. At all events, if this preparation is to be retained, it should be made after the manner of some of the foreign pharmacopœias, with Rhenish instead of Spanish wine.

HYDRARGYRUS

HYDRARGYRUS (see p. 116). Quicksilver. The triturated preparations of this metal, and especially the *Pilulæ Hydrargyri*, Ph. Lond. et Ed. (see p. 118) are sometimes prescribed with good effect in obstinate suppressions of the menses. In these cases they are given in doses of twelve or twenty grains, joined with ammoniacum, asafœtida, or aloes.

CALOMELAS (see p. 135). Calomel. Is likewise employed advantageously in the same cases, in doses of from three to five grains, combined with rhubarb and bitter extracts.

ELECTRISATIO. Electrization. This is one of the most powerful means that can be employed against obstructed menstruation. Drawing sparks twice a day from the region of the pubes, will often suffice; but shocks are more to be depended upon. When other emmenagogues do not readily succeed, we should never neglect to recommend the electrical machine.

Bianchini sur la medecine electrique, 1750.
Scrinci de utilitate Electrificationis, 1751. Recueil
sur

sur l'Electricité medicale, 1752, 1761. *Linnaeus* Confectaria electrico-medica, 1754, and reprinted in *Haller's* Dissertationes Med. Pract. Tom. I. and also in the Amænitates Acad. Vol. IX.

Alberti de vi electrica in Amenorrh. 1764. *Becker's* Essay on Electricity, 1773. *Birch* on the Efficacy of Electricity in Female Obstructions, 1779. *Cavallo* on Medical Electricity, 1780. *De Cazelles* sur l'Electricité medicale, 1782, 1783. *Bertholon* sur l'usage de l'Electricité, &c. 1787.

END OF THE FIRST VOLUME.

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W.

Y.

Z.

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A

PRACTICAL SYNOPSIS

OF THE

MATERIA MEDICA.

VOL II.—PART I,

N. B. The second part of this volume, which will complete the work, is preparing for the press, and will be published in the course of the ensuing winter.

A

PRACTICAL SYNOPSIS

OF THE

MATERIA MEDICA.

VOL II.—PART I.

CONTAINING

CLASS II. EMOLLIENTS.		CLASS V. ANTISEPTICS.
CLASS III. ABSORBENTS.		CLASS VI. ASTRINGENTS.
CLASS IV. REFRIGERANTS.		CLASS VII. TONICS.

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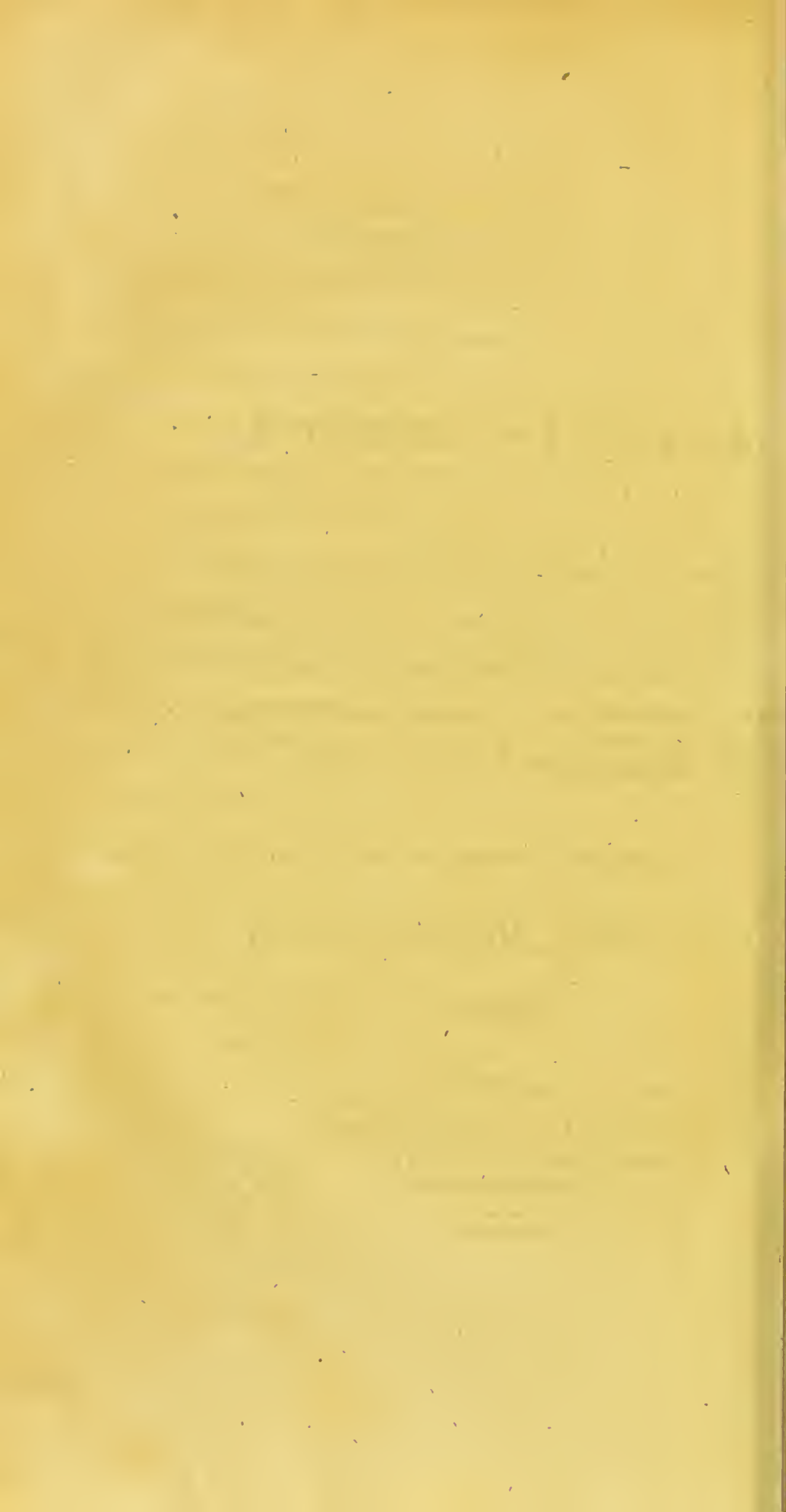
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ADVERTISEMENT.

SINCE the publication of the first Volume of this work, four years have elapsed. The Author will not detain the Reader with explaining the causes of this interruption; but will rather assign the reasons why he has thus sent forth a part only of the second Volume, without waiting until the whole should be ready for the press. He has been induced so to do by the consideration that if he had withheld this part longer, he should have heightened the displeasure already incurred with the purchasers of the first Volume. If his other engagements have prevented him from bringing the work to a conclusion now, one advantage will result from it; *viz.* more opportunity will be allowed for investigating and determining the powers and uses of some new and not yet fully tried remedies, belonging to the important Classes of Antispasmodics and Narcotics. These, with the Classes of Stimulants, Anthelminthics and Heteroclites, together with some supplementary pages relative to the necessity of altering and amending

the Materia Medica conformably to the progress and improvements in Natural History, Chemistry, Physiology, and Clinical Practice,—showing that this branch of medical knowledge is capable of being raised to a pitch of consideration far above that which it has hitherto attained—will make up the remaining part of this volume.

To those who have not purchased the former volume it may be proper to notice, that the plan of the work is there detailed, with the reasons for undertaking it; and that in addition to the Alimentary Substances, that volume contains, Class I. Evacuants, subdivided into eight sections; *viz.* Errhines, Sialagogues, Expectorants, Emetics, Cathartics, Diuretics, Diaphoretics, and Emmenagogues.

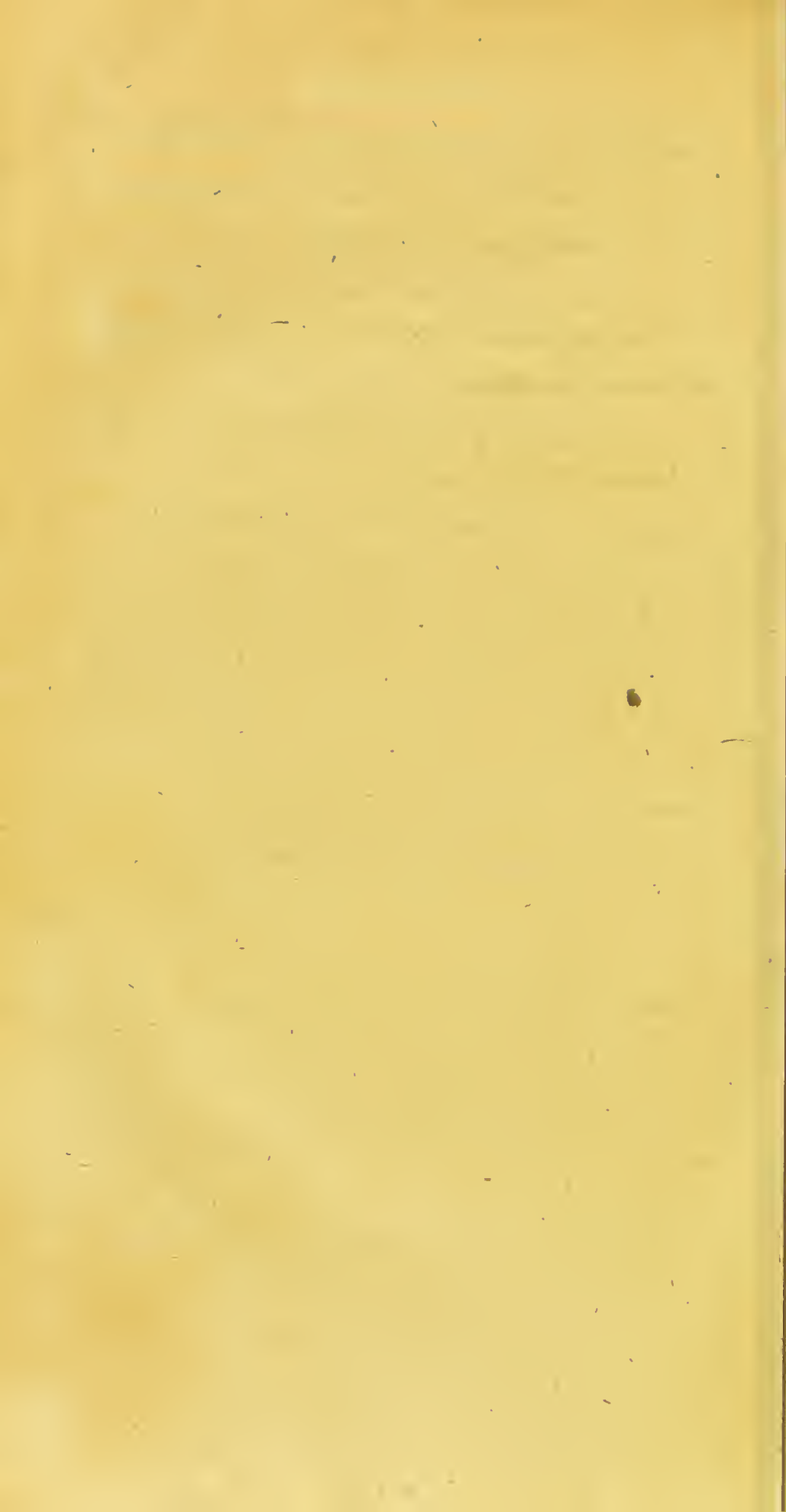
This part of the second Volume contains, Class II. Emollients—Class III. Absorbents—Class IV. Refrigerants—Class V. Antiseptics—Class VI. Astringents—and Class VII. Tonics.

As some persons may be dissatisfied with the

suppression of the Author's name, he wishes it to be understood that it is his intention to affix it to the concluding part of the work.

N. B. This mark ¶ denotes inferior efficacy, inertness, superfluity.

London, April 8, 1802.



TABULAR VIEW
OF
THE CONTENTS OF CLASS II.

EMOLLIENTS.

A. Diluents.

(1) *From the Animal Kingdom.*

Jus Carnis Bubulæ dilutum.
Beef Tea.

Jus Pullinum dilutum.
Chicken Water.

Serum Lactis. *Whey.*

(2) *From the Vegetable Kingdom.*

Infusum Melissæ. *Balm-Tea.*

Infusum Theæ. *Common Tea.*

Decoctum Avenæ. *Gruel.*

————— Hordei. *Barley Water.*

B. Demulcents.

(1) *From the Animal Kingdom.*

Acipenser Huso. *The Isinglass-fish.*

Helix Pomatia. *The Garden Snail.*

Phyfeter Macrocephalus.
The Spermaceti Whale.

(2) *From the Vegetable Kingdom.*

Althæa Officinalis. *Marsh-mallow.*

Amygdalus Communis. *The Almond.*

B. Demulcents.

Astragalus * *Tragacantha.*
Tragacanth or Goats-thorn.

Avena Sativa. *The Oat.*

Cycas Circinalis. *The Sago-Palm.*

Glycyrrhiza Glabra. *Liquorice.*

Hordeum Distichon. *Barley.*

Iatropa Iamipha. *Cassada. Tapioca.*

Lichen Islandicus, *Iceland Liverwort.*
Iceland Moss.

Linum Usitatissimum. *Flax.*

† Malva Sylvestris. *Common Mallow.*

Maranta Arundinacea. *Indian Arrow-root.*

Mimosa Nilotica. *Gum Arabic.*

Olea Europæa. *The Olive.*

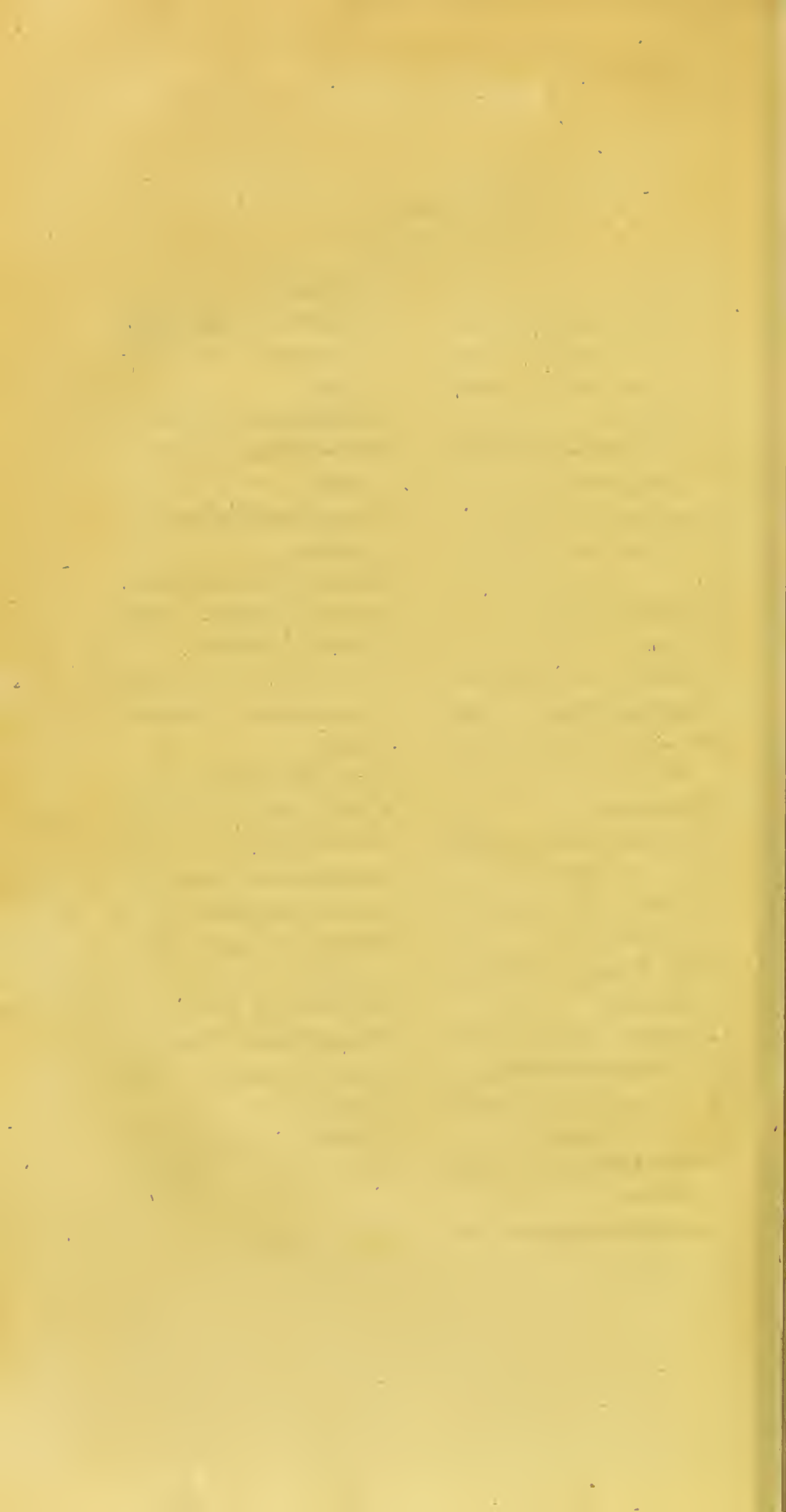
Orchis Masculula. *Salep.*

Pyrus Cydonia. *The Quince.*

Triticum Hybernum. *Wheat.*

Tussilago Farfara. *Coltsfoot.*

—————
Cera. *Wax.*



CLASS II.

EMOLLIENTS. A. DILUENTS.

BY Diluents we understand weak, aqueous liquors with various impregnations. In some instances the impregnation is of a nutritious quality, such as the vegetable and animal decoctions hereafter mentioned; in others, it is merely aromatic, as in the instance of various infusions.

When treating of the alimentary properties of Water (Vol. I. p. 96) we noticed the necessity of dilution, to a certain degree, in the business of nutrition; we may here remark, that there is an equal, if not a greater, necessity for it, in the business of healing. On how many occasions do medicines fail of their intended effect, if water be not copiously given with them? This is particularly the case with such medicines as belong to the orders of Cathartics, Diuretics, and Diaphoretics; and it is upon this principle, chiefly, that the beneficial operation of Mineral Waters is to be explained. Of such waters the mineral impregnation is often very slight; but being in a state of

B 2

extreme

extreme division, aided often by a high temperature, it produces salutary changes upon the diseased body, which could not be effected by the same mineral ingredient administered in larger quantities, but in a less diluted state. See *Saunders on Mineral Waters* 1800.

(1) *From the Animal Kingdom.*

Jus Carnis Bubulæ. Beef-tea. See Vol. I. p. 11.

Jus Pullinum feu Gallinaceum. Chicken Water or Broth. Ibid. p. 27.

Serum Lactis. Whey. Ibid. p. 16.

(2) *From the Vegetable Kingdom.*

Infusum Melissæ. Balm-tea.

Infusum Theæ. Common-tea.

Decoctum Avenæ. Gruel. See Vol. I. p. 72.

Decoctum Hordei. Barley-Water. Ibid. p. 74.

All these preparations are of great use in fevers,
and

and in certain morbid conditions of the intestinal canal and urinary passages; but in many of the above-mentioned cases toast and water (*Infusum panis tostii*) or even pure water will answer as well. In the southern parts of Europe and in the warm climates physicians frequently allow no other beverage to their fever-patients for days and even weeks, but common water. Though such a practice followed up, to its full extent, may not suit the ordinary fevers of this climate; yet, as we shall have occasion to remark under *Refrigerants*, it may be adopted in part with the greatest advantage.

To produce the desired effect it is obvious that the above-mentioned liquids must be taken in considerable quantities.

B. DEMULCENTS.

(a) *From the Animal Kingdom.*

ACIPENSER *Huso*. The Hinglus fish. Ichthyocolla. See Vol. I. p. 43, 44.

HELIX *Pomatia*. The Snail. Ibid. p. 48.

¶ Sperma Ceti. Sebum Ceti. A fatty substance found in a peculiar cavity existing in the head of a species of whale, termed *Phyfeter Macrocephalus*. It possesses all the properties of common fat and expressed oils; and, like them, is incorporated with aqueous liquors by means of mucilage of gum arabic or yolk of egg. In this state of combination it is prescribed where the alimentary canal is pained and irritated by its acrimonious contents, or the urinary passages by calculous concretions. We pass over its exhibition in pulmonary affections. Allured by its beautifully white, shining appearance and crystallized form, practitioners have, for a long period of time, given an undue preference to this species of fat: Whereas it possesses no advantages over the

the common expressed oils, which by reason of their fluidity are more readily combined (through the intervention of mucilages) with aqueous vehicles; and which (being kept in vessels better closed) are not so liable to become rancid and nauseating.

(2) *From the Vegetable Kingdom.*

ALTHÆA *Officinalis*. Monadelphia Polyandria. Columniferæ. Indigenous. (Radix. Folia.) Marshmallow. Half an ounce of the root boiled in a pint of water to half a pint, yields a sweetish mucilaginous decoction.

The *Decoctum Althææ*, *Pb. Ed.* is made by boiling marshmallow-root four ounces, raisins stoned, two ounces, in seven pounds of water down to five pounds. The filter'd liquor after standing till it settles is to be poured off for use. A tea-cup full of this, and the preceding decoction, may be given in the same cases in which the almond-milk, decoction of barley and linseed infusion are prescribed. There is a *Syrupus Althææ* both in the Lond. and Ed. Ph. It is prepared by adding to the decoction of the root a sufficient quantity of sugar. It might be dispensed with. The leaves were formerly used in decoctions for

clysters and fomentations. In the Lond. Ph. the leaves of the common mallow are substituted in their place.

AMYGDALUS Communis. Icosandria Monogynia. Pomaceæ. Arbor. A native of Africa, but naturalized by cultivation to the Southern parts of Europe. (*Amygdalæ dulces.*) The Almond. Sweet almonds. These kernels, freed from their skins by maceration in hot water, yield, when properly triturated with water, a milky liquor or emulsion. In the *Lac Amygdalæ*, Ph. Lond. an ounce and a half of almonds, and half an ounce of double-refined sugar, are triturated with two pints of water. In the *Emulsio Communis*, Ph. Ed. the blanched almonds are triturated with water alone, in the proportion of one ounce of the former to two pounds and a half of the latter. The almond emulsion prepared with gum arabic of this Pharmacopœia is termed *Emulsio Arabica*, and will be mentioned under the article Mimosa. These milky liquors constitute an useful beverage in cases of hectic fever, dysury, (whether excited by cantharides or from other causes) in stone and gravel, and in some affections of the intestinal canal. Tincture of opium is often joined with them. A tea-cup full or more may be taken for a dose.

The

The *Oleum Amygdalæ* may in like manner be incorporated with water by means of gum arabic or any other mucilage; also by means of alkalis. Thus combined it is given in the same cases as the almond emulsion. It is some times given in the form of a linctus, mixed up with conserves, and other saccharine and mucilaginous substances. In some cases of colic, as also where a stone is impacted in the gall duct, it may be given by itself; or only with the addition of laudanum to prevent vomiting, an effect to be guarded against in the colic. Where poisons, especially metallic poisons, have been swallowed, several tea-cups full of this oil may be given, until the stomach is emptied. Lastly, it is occasionally (though not so frequently as olive-oil, which is cheaper) added to emollient clysters.

ASTRAGALUS *Tragacantha*. Diadelphia. Decandria. Papilionaceæ. Southern parts of Europe. Frutex. Succus gummosus e trunco et ramis stillans, sole aëreque exsiccatus. (Gummi tragacanthæ.) Tragacanth or Goat's-thorn. Gum-tragacanth. This gum is less soluble in water than gum arabic, and forms with it a much thicker mucilage; which on this account is better adapted for making dry substances into pills and boluses, and for some other pharmaceutical purposes, than the arabic gum. Its medicinal uses are the same

as those of the *mimosa nilotica*, which see. It is an ingredient in the *Trochisci Amyli* and *Trochisci Glycyrrhizæ*, Ph. Lond. which see under their respective heads. The *Pulvis Tragacanthæ compositus*, Ph. Lond. consists of tragacanth, gum arabic and starch, each one ounce and a half, double refined sugar, three ounces, rubbed together into a powder. Half a drachm or more may be given for a dose. It is sometimes mixed up with syrups into the form of a linctus, and prescribed in catarrhal and phthifical cases. The *Mucilago Tragacanthæ*, Ph. Lond. is made by dissolving with a gentle heat half an ounce of the gum in ten ounces of water. The *Mucilago Gummi Tragacanthæ*, Ph. Ed. is in the proportion of one ounce of the gum to eight ounces of boiling water. After macerating for twenty-four hours, the solution of the gum is promoted by trituration, and is afterwards passed through a linen strainer.

AVENA Sativa. Triandria. Digynia. Gramina. The Oat. The decoction (called *Gruel*) prepared from the seeds freed from their husks (in which state they are termed *Groats* or *Groots*) is an useful demulcent beverage in febrile affections, in cases of cholera and dysentery, and in various disorders of the urinary passages.

CYCAS *Circinalis*. C. *revoluta*. Sago. See Vol. I. p. 86.

GLYCYRRHIZA *Glabra*. Diadelphia Decandria. Papilionaceæ. Southern parts of Europe. (Liquiritia. - Radix.) Liquorice. This sweet mucilaginous root is frequently added to decoctions of other demulcent vegetables, and given in hectic and phthifical cases. It is an ingredient in the *Decoctum Hordei compositum*, Ph. Lond. (see Hordeum) and in the *Trochisci Amyli*, Ph. Lond. From the *Succus Spissatus vel Extractum Glycyrrhizæ*, mixed together with an equal quantity of double-refined sugar, and about a seventh part of the whole composition of gum tragacanth (with water enough to form a paste) are formed the *Trochisci Glycyrrhizæ*, Ph. Lond. formerly called *Trochisci Bechici Nigri*. Black pectoral troches. The *Trochisci Glycyrrhizæ*, Ph. Ed. are composed of extract of liquorice, gum arabic, each, four parts, double-refined sugar eight parts. These ingredients are dissolved in warm water and filter'd; the liquor is then evaporated in a gentle heat until it becomes of a consistence proper for forming troches. These are more mucilaginous than the troches of the London Pharmacopœia, which some may deem a sufficient advantage for the additional trouble incurred in their preparation. As their old name denotes, they are designed for catarrhal

and phthifical cafes.—There are moreover in the Ed. Ph. the *Trochisci Glycyrrhizæ cum Opio*, prepared by triturating two drachms of opium with half an ounce of the tincture of balsam of tolu, until the opium is dissolved, and then gradually adding eight ounces of common syrup and five ounces of extract of liquorice, softened with warm water. Whilst the whole is being well mixed together, five ounces of powdered gum arabic are to be gradually added. The mass is then to be dried till it becomes fit for making troches, of which each should weigh ten grains. These are suited to the same cases as the preceding. *Wedel de Glycyrrhiza.* 1717.

HORDEUM Distichon. Triandria Digynia. Gramina. Barley. The decorticated seeds, termed *Pearl Barley* (*Hordeum perlatum*) boiled, in the proportion of two ounces to four pints of water, until this last is reduced to two pints, yield the *Decoctum Hordei*, Ph. Lond. (*Aqua Hordeata.* Barley Water. Decoction of Barley.) In the *Decoctum Hordei*, Ph. Ed. the proportions are two oz. of barley to five pounds of water to be reduced by boiling to one half. In both Pharmacopœias it is directed that the barley be first washed with cold water, and then boiled for a little while in about half a pint of water. This being thrown away, the above-mentioned quantity of boiling water is then

then added. It is given in unlimited quantities, in the same cases as the *Lac Amygdalæ* and *Decoctum Avenæ*.

The *Decoctum Hordei compositum*, Ph. Lond. (*Decoctum Pectorale*) is prepared by boiling in two pints of the (simple) Decoction of Barley and one pint of water, two ounces of raisins, stoned, two ounces of figs, sliced, and half an ounce of liquorice-root, sliced and bruised. The whole is boiled down to two pints, and strained. The quantity of liquorice in this preparation is too inconsiderable to be of any use. It would be an improvement, if the raisins were omitted, and a quadruple proportion of the liquorice added.—It is given in doses of a tea-cup full in phthical and other pulmonic affections, joined with opiates to counteract its laxative effects.

Iatropha Manihot & *I. Lanipha* Tapioca. See Vol. I. p. 56.

LICHEN *Islandicus*. Cryptogamia Algæ.—Algæ. Iceland, Lapland, Swisserland, England, and other northern parts of Europe. (*Muscus islandicus*.) Iceland Liverwort. Iceland Moss. This like all the lichens abounds in mucilage; but at the same time it possesses a bitter principle, which should be separated from it before it is administered as a demul-

demulcent; though this principle is desirable where it is given with other intentions, as we shall have occasion to notice under Tonics. It is freed from its bitterness by maceration in warm water for twenty-four hours; after which it is boiled in a fresh quantity of water, in the proportion of one ounce of the lichen to two pints of water, kept on the fire until it is reduced by evaporation to one pint. Of this a tea-cup full is given frequently in cases of hectic fever, phthisis pulmonalis, dysentery, and scurvy. References will be made to writers on this useful vegetable under the class of Tonics.

LINUM Usitatissimum. Pentandria Pentagynia. Grinales. Indigenous. Supposed by some to have been derived from Egypt (Semen) Flax. From the seeds of this plant, called *linseed*, decoctions and infusions are prepared (in the proportion of half an ounce of the seed to a pint of water) and given in catarrhal and pleuritic affections, in strangury, in stone and gravel, and in colicky and dysenteric conditions of the intestinal canal. The decoction is likewise administered clysterwise; in which case a larger proportion of the seed may be used. To these preparations opium is frequently added. This sort of clyster is very useful in tenesmus and abrasions of the intestines. See *Thesaurus Med.* p. 154. The bruised and boiled seeds

seeds are further used in poultices.—The expressed oil, called *linseed-oil* (*Oleum e seminibus lini*) possesses the same properties and may be used in the same manner as the *Oleum Amygdalæ*. It has been given by itself with good effect in cases of pleurisy, peripneumony, hæmoptysis, ileus, colica pictonum, dysentery, and nephritis. In some of these cases several ounces of the oil have been taken at a dose, repeated two or three times in a day. But in ileus, and the species of colic just mentioned, the *oleum ricini* is preferable. *De Haen* Rat. Med. *Degner* de Dysenteria.

¶ MALVA *Sylvestris*. Monadelphia Polyandria. Columniferæ. Indigenous. (Folia.) Common Mallow. The dried leaves are an ingredient in the *Decoctum pro Enemate*, Ph. Lond. formerly termed *Decoctum commune pro clystere*. In some of the foreign Pharmacopœias it enters into the decoctions for fomentations. For all medicinal purposes it is inferior to the Marshmallow; and ought, therefore, to have been expunged from the new materia medica lists of both Pharmacopœias.

MARANTA *Arundinacea*. Monandria Monogynia. Scitamineæ. South America, and, by transplantation, West-Indies. Indian Arrow-root. The starch prepared from the root of this plant, and
fold

fold under the name of Arrow-root powder, yields with boiling water a good mucilage, which is a common remedy in the West-Indies in diarrhœas and dysenteries. It may be occasionally flavoured with sugar, wine and spices. A teaspoon full of the arrow-root powder will render half a pint of boiling water sufficiently mucilaginous; those who wish to make a jelly of it, may add a double quantity of the powder: See *Dr. Jas. Clark's Account* of the comparative quantities of amylaceous matter yielded by different vegetables growing in the West-India islands; in *Dr. Simmons' Med. Facts and Observations*, Vol. VII.

MIMOSA Nilotica. Polygamia Monœcia. Lomentaceæ. Arbor. Arabia, Egypt, and Senegal. Succus gummosus ex cortice trunci promanans sole aëreque exsiccatus, *Gummi Arabicum* dictus. Gum Arabic. This gum affords a pure and excellent mucilage.

It is applicable to various medicinal and pharmaceutical purposes. When dissolved in a proper quantity of water and duly sweetened with syrup, it forms a useful demulcent in hoarsenesses, tickling coughs and phthisis pulmonalis; as well as in diarrhœas, dysenteries, strangury, stone and gravel, and ardor urinæ. In these cases opiates are advantageously

vantageously joined with it. In pharmaceutical operations, it is employed to render oils, balsams, and resins, miscible with aqueous liquors. It is an ingredient in the *Pulvis Tragacanthæ compositus*, Ph. Lond. which we have already noticed; and in the *Trochisci Arabici* and *Trochisci Glycyrrhizæ*, Ph. Ed. The latter have been already described under the article Glycyrrhiza; the former, viz. the *Trochisci Arabici* (formerly termed *Trochisci Bechici Albi*) consist of gum arabic four ounces, starch one ounce, double-refined sugar one pound; all which being well rubbed together, are, with the help of a sufficient quantity of rose water, made into troches; to be given in the same cases as the *Trochisci Glycyrrhizæ* before-mentioned. The *Mucilago Arabici Gummi*, Ph. Lond. is made by dissolving four ounces of the gum in eight ounces of water; while the *Mucilago Gummi Arabici*, Ph. Ed. is prepared with equal quantities, by weight, of the gum and water, and is afterwards passed through a linen strainer. These mucilages are, like that of the gum tragacanth, chiefly used for pharmaceutical purposes; but they may be given alone or combined with syrups and other additions, in the dose of half an ounce or six drams. The *Emulsio Arabica*, Ph. Ed. is the *Emulsio Communis* of that Pharmacopœia with the addition of two ounces of the mucilage of gum arabic to two pounds and a half of the afore-

said emulsion. It is given in the same cases and in the same doses as the simple emulsion.

OLEA Europæa. Olive-oil. Salad-oil. (See Vol. I. p. 174.) This is given alone and variously combined, in the same cases and in the same doses as the Almond-oil. Being cheaper than the latter, it is more frequently employed in the preparation of emollient clysters, ointments and cerates.

ORCHIS mascula. Gynandria. Diandria. Orchideæ. Indigenous. (*Radix Salep dicta.*) Salep. The dried pulverized root, of this and several other species of orchis, gives out a pleasant mucilage to boiling water. The proportions should be half an ounce of the former to a quart of the latter. This has been administered with good effect in diarrhœa, dysentery, stranguy, stone and gravel, hectic fever, and phthisis pulmonalis. (Vol. I. p. 56.) A jelly is also prepared from salep, by steeping one drachm thereof in four ounces of hot water, and afterwards squeezing it through a cloth strainer. This may be sweetened and aromatized at pleasure. *Percival's Essays* and *Lind on Diseases incidental to Europeans in Hot Climates.*

¶ *PYRUS Cydonia.* Icosandria. Pentagynia.
Pomaceæ

Pomaceæ. Arbor. Cultivated in Northern Europe, but a native of Crete. (Semen. Cydoniorum Semina.) Quince-feed. From the seeds of this fruit, hot water extracts a mucilage; which being in no respect different from the other mucilages already described, may well be dispensed with. There is in the new Pharmacopœia of the London College a *Mucilago Cydonii*. One drachm of the seeds is directed to be boiled gently in eight ounces of water for ten minutes, and then strained. The mucilages of gum arabic and gum tragacanth render this quite superfluous.

TRITICUM *hybernum*. Triandria. Digynia. Gramina. Supposed to have been introduced from Sicily. (Tritici Semen, Amylum ex eodem præparatum) Wheat and starch prepared therefrom. Dissolved in hot water, starch yields a strong mucilage, which is advantageously administered by the mouth and per anum in diarrhœas and dysenteries. As a mucilage it is likewise serviceable in phthifical and hectic cases. Hence it is an ingredient in the *Trochisci Amyli*, Ph. Lond. and in the *Trochisci Arabici*, Ph. Ed. The latter have been already described; the former consist of starch one ounce and a half, Liquorice-root six drachms, Iris-root half an ounce, double-refined sugar a pound and a half. All these ingredients being rubbed together into a powder are to be made

into troches by means of mucilage of tragacanth. The iris, as the College suggests, may be omitted. The *Mucilago Amyli*, Ph. Lond. is made by triturating three drachms of starch with a pint of water, and afterwards boiling for a short time. The *Mucilago Amyli*, Ph. Ed. is prepared (in the same manner) with half an ounce of starch to a pound of water. This mucilage is used clysterwise in diarrhœas and dysenteries. To such clysters laudanum is often advantageously added.

TUSSILAGO Farfara. Syngenesia. Polygamia. Superflua. Compositæ Discoideæ. Indigenous. (Folia et Flores) Coltsfoot. A decoction of this herb has, on account of its mucilaginous properties, been recommended in catarrhal and phthifical cases. (*Thesaur. Med.* p. 154); also in scrophulous ulcerations. *Fuller Med. Gymnastica.*

CERA. Wax. This substance is collected from certain parts (chiefly from the pollen of the antheræ) of vegetables, by bees. As it is not, like honey, taken into their bodies, there to be concocted and in some degree animalized and afterwards ejected, it may properly enough be ranked among the vegetable products.

It is given internally in cases of obstinate diarrhoea and dysentery, combined, by means of soap, with aqueous and mucilaginous liquors, so as to form a sort of emulsion. *Thesaur. Med.* p. 152.

TABULAR VIEW
OF
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<i>Water and Spirit of Ammonia.</i>	<i>Bolus Armenus. Armenian Bole.</i>
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CLASS

CLASS III.

ABSORBENTS.

THE substances which belong to this class, are especially adapted to such disorders of the stomach and intestinal canal, as proceed from, or are connected with, acidity in those parts. Hence they are frequently prescribed in the diarrhœas of children and old people. It should be remarked, however, that much abuse prevails in regard to their exhibition in the diseases of children; where complaints are often aggravated rather than relieved by them. There is even reason to suspect, that they sometimes lay the foundation for mesenteric obstructions and other visceral mischief. In like manner they not unfrequently prove hurtful in the dysenteric affections of adults, in consequence of being given at too early a period of such attacks; thereby causing to be pent up and retained what ought to come away. Hence, in the administration of medicines of this class, more judgment and circumspection are required, than is generally imagined. The common error is, to begin with them too soon, and to continue them too long.

(1) *From the Animal Kingdom.*

AMMONIA *præparata*, Ph. Lond. et Ed. (See Vol. I. p. 172.) Volatile Alkali. From five to twelve grains of this alkaline salt, joined with ten or fifteen grains of pulverized ginger, are sometimes given, in aqueous vehicles, in gouty acidities of the stomach. In similar cases, and in some convulsive disorders of children connected with acidity of the *primæ viæ*, are prescribed the *Aqua et Spiritus Ammoniacæ*, Ph. Lond. et Ed. (p. 173 and 242, Vol. I.) The former is given to adults in doses of thirty to fifty drops; to children, in doses of three to six drops: of the latter (*viz.* the *spiritus ammoniacæ*) half the before-mentioned quantities will generally suffice. In similar cases and doses may be exhibited the *Liquor Volatilis Cornu Cervi*, Ph. Lond. and *Aqua Ammoniacæ ex Ossibus*, Ph. Ed.—From the *Cornu Cervi Ustum* (Burnt Hartshorn) is prepared the *Decoctum Cornu Cervi*, Ph. Lond. (formerly called *Decoctum Album*.) Two ounces of burnt hartshorn and six drachms of gum arabic, are boiled in three pints of water down to a quart, the decoction being constantly stirred. Of the strained liquor a tea-cup full may be taken at pleasure in diarrhœas attended with acidity and acrimony of the intestinal canal. The *Cornu Cervi Ustum* is an ingredient

dient in the *Pulvis Opiatus*, Ph. Lond. which consists of one part purified opium, and nine parts burnt hartshorn. Dose from five to ten grains. It is given, like the *Decoctum Cornu Cervi*, in diarrhœas.

CANCER *Pagurus*. Insecta Aptera. In the Europæan seas. (Chelæ Cancrorum) Crabs' Claws. The Claws are prepared for medicinal use by pulverization, levigation, ablution with hot water, and subsequent exsiccation upon chalk, blotting paper being interposed between the levigated claws and the chalk. Dose half a drachm or more, in the same cases as the *Creta Præparata*, which see. They are the principal ingredient in the *Pulvis Chelarum Cancri compositus*, Ph. Lond. which consists of Crabs' claws one pound, chalk and red coral, each three ounces. Dose half a drachm or two scruples. The Coral is a superfluous ingredient in this composition. It should be thrown out, and a double quantity of chalk substituted in its place.

¶ *ISIS nobilis*. Vermes. Zoophyta. Mediterranean. (*Corallium Rubrum*.) The Red Coral. Crabs' claws render this an unnecessary addition to the list of the materia medica. It is not to be found in the Edinburgh catalogue; and it will doubtless

doubtless be expelled from the London Pharmacopœia, on the next revision of that work.

OSTREA edulis. Vermes. Testacea. In the Europæan Seas. (*Ostreum.* Testa.) The Oyster. It's shell is prepared in the same manner, and given in the same doses, as the *chelæ cancri*. The one may be indifferently used for the other, and perhaps there is no occasion for both. The calcined shells have been recommended by some physicians for the preparation of lime-water; but for this purpose they deserve no preference over common quick-lime.

SPONGIA officinalis. Vermes. Zoophyta. Mediterranean. Burnt sponge (*spongia usta*) seems to owe its beneficial operation (mostly slight and uncertain) in scrophulous disorders, partly to its alkaline and partly to its carbonaceous nature. Perhaps the first-mentioned property may contribute to the solution and diffusion (in the human body) of its coaly matter. It is given (made into a bolus or lozenge) in doses of a scruple or half a drachm, twice a day. *Theſaur. Med.* p. 351. What would be the effect of larger doses joined with a small quantity of opium, to prevent purging? *Hufeland* makes a lixivium of it, and joins bitters and narcotics with it.

(2) *From*

(2) *From the Vegetable Kingdom.*

KALI *præparatum*, Ph. Lond. Lixiva purificata, Ph. Ed. (Alkali Vegetabile Fixum.) Prepared Kali. Purified Lixiva. Fixed Vegetable Alkali. Salt of Tartar. (See Vol. I. p. 235.) Dissolved in water, this alkaline salt has been administered with good effect in acidities of the stomach and intestinal canal, and in convulsive affections therewith connected. In the last-mentioned cases it is joined with opium, and applied also externally in the form of a bath. (*Stutz* in *Hufeland's Journal*, and in the *Medical and Physical Journal*, Vol. V.) In the same manner this alkali has been given with success to rickety children. (*Thesaur. Med.* p. 159.) In larger doses it is often successfully employed when acid and mineral poisons have been swallowed. The aerated solution of it, well known under the name of *Aqua Mephitica Alkalina* (*Ibid.* p. 103—105) is an efficacious remedy in calculous complaints. This, however, belongs rather to the class of Diuretics. In the disorders above-mentioned the *Kali præparatum* may be given to children in doses of from one to five grains, dissolved in mucilaginous and saccharine liquors; to adults in doses of five to fifteen grains. When combined with fixed air or carbonic acid, as in the above-mentioned aqua mephitica alkalina, a larger quantity

tity of the kali (for instance a scruple) may be given at a time. For the same purposes as the salt itself, may be used the *Aqua Kali Præparati*, Ph. Lond. (Lixivium Tartari) which is nothing more than the kali brought into a state of deliquescence, or liquidness, by exposure in a damp place; but as the strength of this is apt to vary, it is perhaps better to use definite quantities of the prepared kali and water in its place. Dose, to adults, fifteen or twenty drops in any appropriate vehicle.

AQUA Kali Puri, Ph. Lond. *Aqua Lixivia Caustica*, Ph. Ed. (Lixivium Saponarium. Lixivium Causticum. Soap-ley.) This is obtained by de-aërating (or rendering caustic) prepared kali (or purified lixiva) by means of quick-lime and water, and afterwards filtrating the liquor. In the Lond. Formula there are six parts of quick-lime to four of the alkali; in the Ed. eight of the former to six of the latter. In the Lond. Formula a gallon of water is directed to every pound of the alkali. The whole quantity of water employed in the Ed. Formula gives nearly the same proportion; but it is not added to the quick-lime and alkali all at once, part of it being poured upon the filter to wash away from the lime all the remaining pure alkali. This lixivium, when duly prepared, excites no effervescence on being mixed with acids.

The

The Aqua Kali Puri was formerly much employed in calculous disorders. From ten to forty drops were given in gruel, milk, or broth, twice or thrice a day; but even in these doses it has often proved highly injurious, when long continued, to the organs of digestion. Hence it has been justly superseded by the aërated solution of kali, or aqua mephitica alkalina, before-mentioned. *Home on Solvents* 1783.

(3) *From the Mineral Kingdom.*

¶ *BOLUS Gallicus*. French Bole coincides in its properties with the Creta Præparata, which see. Perhaps this article of the materia medica might be dispensed with; for it is doubtful whether the argillaceous earth, which enters into its composition, possesses any peculiar agency, distinct from that of the cretaceous absorbents. The *Terra Lemnia*, a species of bolar earth, and *Bolus Armena* are equally obsolete with the above. In consequence of the ferruginous calx with which some of these earths abound, they have been supposed to exert an astringent operation, and hence have been employed in chronic diarrhœas, and dysenteries. See Astringents. *Gmelin Apparatus Medicaminum*, Vol. I.

CALX

CALX viva. Lapis Calcareus recens ustus. Quick-lime. Fresh burnt Lime-stone. This is employed for the preparation of the *Aqua Calcis*, Ph. Lond. et Ed. This is made (according to the directions of the Lond. College) by adding twelve pints of hot water to half a pound of quick-lime, and then stirring them about; after standing together in a covered vessel for an hour, the liquor is poured off [from the sediment] and kept in a vessel [closely] stopped. The Edinburgh College direct the same quantity of lime to be slaked with four ounces of water, to which, while yet warm, twelve pounds of water are afterwards added, the whole being stirred together. When the lime has settled to the bottom it is to be stirred up again with the water, and this is to be repeated about ten times, taking care that the vessel be constantly closed, so as to keep away the external air. Lastly, the water is to be filtered through blotting paper in a funnel provided with a lid, and to be kept in bottles well stopped. This process is unnecessarily tedious. It is justly remarked in *Healde's* Translation of the London Pharmacopœia, that by avoiding the frequency of stirring, and the filtration, the aqua calcis of the London College is much less exposed to the air. This objection might be done away, if, after the example of the Swedish Pharmacopœia, the Edinburgh College were to direct the vessel itself containing the

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the lime-water to be shaken, instead of having the lime stirred up with the water. In the former case there would be no necessity for uncovering the vessel until the liquor should be fit to be poured off; and that should be done, after the manner of the London Pharmacopœia, by simple decanting without straining.—This is a solution of *pure* or *de-aërated* calcareous earth in water. It is given in doses of a quarter of a pint, or even half a pint, in acidities of the stomach and intestinal canal; in diarrhœa and dysentery; in diabetes; in fluor albus, and in calculous affections; in which last, however, it has been superseded by the aqua mephitica alkalina. It is also prescribed in scrophulous, phthifical and cancerous cases. It is sometimes mixed with an equal quantity of warm milk; at other times it is given in combination with bitters, astringents and light aromatics. *Cartheuser* de Aquæ Calcis vivæ usu interno, 1743. *Girtanner* de Terra Calcareæ cruda et calcinata, 1782. *Vogel* de Curatione Cancri per Aquam Calcis vivæ, 1769. *Whytt* on the Virtues of Lime-Water, 1752. *Alston's* Dissertations on Quick-lime and Lime-Water 1754.

CRÊTA præparata. This is chalk levigated, washed, and afterwards dried in the same manner as the chelæ cancrorum. From fifteen grains to a drachm

drachm are given for a dose in the same cases as crabs' claws and the other earthy absorbents. The *Pulvis Cretæ compositus*, Ph. Lond. is composed of chalk six parts, cinnamon four parts, tormentil, and gum arabic, each, three parts, pepper, 1-32d part of the whole. Dose from fifteen grains to half a drachm, in diarrhœas, (especially those which occur in the advanced stage of low fevers) and other disorders of the intestinal canal. In prescribing this and the other preparations of chalk in dysenteries, the precautions mentioned at the head of this class of medicines should not be neglected. The *Pulvis Cretaceus*, Ph. Ed. consists of chalk four ounces, nutmeg half a drachm, cinnamon a drachm and a half. It is given in the same cases, and in the same doses, as the preceding. The *Pulvis Cretæ compositus cum Opio*, Ph. Lond. is made by adding a drachm and a half of opium to eight ounces of the compound powder of chalk. From fifteen grains to two scruples may be given for a dose. Two scruples contain nearly a grain of opium. It is applicable to the same cases as the preceding preparations.

The *Trochisci Cretæ*, Ph. Lond. (formerly called *Tabellæ Cardialgicæ*) consist of chalk four ounces, crabs' claws two ounces, fine sugar three ounces, cinnamon 1-18th part, formed into troches by
means

means of mucilage of gum arabic. One of these is dissolved in the mouth now and then in cases of heart-burn, gouty flatulence, &c.

The *Trochisci Cretæ*, Ph. Ed. consist of chalk four ounces, gum arabic one ounce, nutmeg one drachm, fine sugar six ounces, formed into troches, with a sufficient quantity of water.

The *Mistura cretacea*, Ph. Lond. (formerly called *Julepum e Cretâ*) is compounded of chalk one ounce, double refined sugar six drachms, gum arabic one ounce, water two pints. Dose one or two ounces, in acidities of the stomach and bowels, and in the colliquative diarrhoeas, which occur in hectic and phthifical cases. Small quantities of tincture of opium are often usefully joined with it.

The *Potio Cretacea*, Ph. Ed. is made by gradually mixing (by the aid of trituration) one ounce of chalk, half an ounce of fine sugar, and two ounces of mucilage of gum arabic, with two pounds and a half of water, and two ounces of spirit of cinnamon. Dose four spoonsfull occasionally. In the same cases as the *Mistura cretacea*.

MAGNESIA *ustâ*. M. *alba*, Ph. Lond. et Ed. should

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have been denominated *Magnesia pura*. *M. præparata*. (See Vol. I. p. 216.) This earthy substance is frequently prescribed for the removal of complaints connected with acidity of the stomach and bowels, to which children are especially liable. To these it is given in doses of ten or fifteen grains in any appropriate vehicle, joined sometimes with rhubarb, sometimes with opium. To adults it is given in doses of half a drachm or a drachm. In larger quantities it proves purgative. See Cathartics.

The *Trochisci Magnesiae*, Ph. Lond. are composed of calcined magnesia four ounces, refined sugar two ounces, ginger one scruple, made into a paste with mucilage of gum arabic. They are given in the same manner, and in the same cases, as the chalk-troches.

NATRON præparatum, Ph. Lond. *Soda purificata*, Ph. Ed. Prepared Natron. Purified Soda (Alkali Minerale. Sal Alkalinus Fixus Fossilis.) Solutions of this alkaline salt in common water afterwards super-saturated with the carbonic acid or fixed air, (the proportions of water and salt being the same as those of the vegetable fixed alkali in the common aqua mephitica alkalina) are prescribed with great success, under the name of *acidulous soda-water*, in calculous complaints. In situations,

situations, where these solutions cannot be prepared or cannot be purchased, the natron may be used in the form of pills in the manner described at p. 240 Vol. I.

TABULAR VIEW
OF
THE CONTENTS OF CLASS IV.

REFRIGERANTS.

(1) <i>From the Vegetable Kingdom.</i>	<i>Acidum muriaticum. Muriatic Acid.</i>
<i>Acetum distillatum. Distilled Vinegar.</i>	<i>Acidum vitriolicum. Vitriolic Acid.</i>
<i>Kali acetatum. Acetated Kali. Diuretic Salt.</i>	<i>Spiritus Ætheris vitriolici. Spirit of vitriolic Æther.</i>
<i>Aqua Ammoniaæ acetatæ. Water of Acetated Ammonia.</i>	<i>Plumbum acetatum. Acetated Lead.</i>
<i>Mindererus's Spirit.</i>	<i>Cerussa acetata. Acetated Cerusse.</i>
<i>Citrus medica. The Lemon.</i>	
<i>Kali nitratum. Nitrated Kali. Purified Nitre.</i>	<i>Aqua lithargyri acetati. Water of Acetated Litharge.</i>
<i>Oxalis Acetosella. Woodsorrel.</i>	<i>Extract of lead.</i>
<i>Tartarum purificatum. Purified Tartar. Crystals of tartar.</i>	<i>Aqua lithargyri acetati composita. Compound Water of acetated Litharge. Goulard Water.</i>
(2) <i>From the Mineral Kingdom.</i>	<i>Zincum vitriolatum. Vitriolated Zinc. White-Vitriol.</i>
<i>Aqua frigida. Cold Water.</i>	

CLASS.

CLASS IV.

REFRIGERANTS.

(1) *From the Vegetable Kingdom.*

ACETUM *distillatum*, Ph. Lond. et Ed. Distilled Vinegar. This, in common with other acids, moderates the excessive heat in febrile disorders, when duly diluted with water. An ounce added to a quart of spring water, with or without sugar, forms, in these cases, a pleasant beverage (the *oxycraton* and *posca* of the ancients) which may be drank in large quantities, according to the desires of the patient. See *Mel acetatum* and *Syrupus Aceti*.

The *Kali acetatum*, Ph. Lond. *Lixiva acetata*, Ph. Ed. (See Vol. I. p. 236) is employed for the same purposes, dissolved in water, in the proportion of two drachms to a pint. A tea-cup full may be taken at pleasure.—The *Aqua Ammoniae acetatae*, Ph. Lond. et Ed. (See Vol. I. p. 242) which is prepared by saturating ammonia with vinegar, may be given in the same cases in doses of three drachms or half an ounce, diluted with an ounce and a half of water. In the preparation of what are termed *Saline draughts*, a scruple or

half a drachm of prepared kali, is saturated with half an ounce or six drachms of vinegar, and afterwards diluted with water and sweetened with a proper quantity of syrup. For this purpose, however, lemon-juice is preferable, where it can be procured. Vinegar may also be administered clysterwise mixed with an equal proportion of water. *Thesaur. Med.* p. 167.

CITRUS medica. Polyadelphia. Icosandria. Pomaceæ. Arbor. Asia; and by transplantation in the Southern parts of Europe. (Limon.) The Lemon. The juice of this fruit is among the most grateful of the vegetable acids. Like vinegar it may be given freely to quench thirst and diminish heat in fevers, diluted in the same manner with water, and rendered palatable with the addition of sugar. This is what is termed *Lemonade*. The juice is also employed in the same manner as the acetous acid or distilled vinegar, for the preparation of the *effervescing* or *Saline-draughts* before-mentioned, and of which examples may be seen in the *Thesaur. Med.* p. 162, 163.

KALI nitratum, Ph. Lond. *Lixiya nitrata*, Ph. Ed. (Nitrum) Nitre. Saltpetre. (See Vol. I. p. 237.) This neutral salt is frequently prescribed, with good effect, for abating heat and thirst in febrile diseases. Fifteen grains or a scruple may be

be given for a dose, in the form of a powder triturated with sugar, or dissolved in a sufficient quantity of water, and sweetened with syrup, so as to form a julep. It is in inflammatory disorders that this salt has been found useful, such as acute rheumatism, (*Brockelsby's Observations on Army Diseases*) mania, pulmonary hæmorrhage, &c. Of late, indeed, some attempts have been made with it in typhus-fever, but a medicine which lowers the pulse is little suited to such cases.

In hæmoptoe and other hæmorrhages, it may be given either in the form of a bolus combined with rose-conserve, or dissolved in infusion of roses (unacidulated) in the form of a mixture or draught. (*Dickson Med. Observations and Inquiries, Vol. IV. and Gibbon's Medical Cases.*)

The *Trochisci nitri*, Ph. Lond. et Ed. consist of this salt made into the required form with mucilage of gum tragacanth. They are given in inflammatory affections of the lungs,

The *Spiritus Ætheris nitrosi*, Ph. Lond. et Ed. (See Vol. I. p. 238) may, in like manner, be employed as a refrigerant in febrile and inflammatory disorders, in doses of forty or sixty drops, diluted with water. *Hoffmann de Nitro, ejus Natura et Usu in Medicina, 1698. Cartheuser de Amplissimo Nitri Ufu Medico, 1747.*

OXALIS *Acetosella*. Woodforrel. See Antiseptics.

TARTARUM *purificatum*. Crystalli Tartari, (Cremor Tartari) See Vol. I. p. 213. Two drachms of this salt dissolved in a quart of hot water with a proper quantity of sugar, and afterwards suffered to get cold, forms a pleasant cooling beverage (called Imperial) in fevers.—The *concrete acid of tartar* or *essential Salt of tartar*, obtained from crystals of tartar in the manner described in the Appendix to the *Thesaur. Med.* p. 370, may be employed, when dissolved in water, in place of vinegar or lemon-juice.

(2) *From the Mineral Kingdom.*

AQUA *frigida*. Water, considered in relation to its chemical composition and decomposition, belongs strictly to none of the three kingdoms of nature; but as all water, except that which is distilled, contains more or less of mineral substances dissolved in it, and as spring water is the water here intended, it may properly enough be ranged under the present head.

From the remotest times to the present day Cold Water has been resorted to as the simplest,
and

and most efficacious refrigerant in inflammatory and febrile disorders. In the ardent and malignant fevers of hot climates, physicians allow their patients to drink it in unlimited quantities; and the Italian practitioners trust almost entirely to it in such cases. It is scarcely necessary to remark that this treatment cannot be carried to so great a length in the fevers of this country. Cold Water is also of eminent service in pulmonary and uterine hæmorrhages. *Lanzani* Manner of using Cold Water (in Italian) 1717. *Hancocke* and *Cyrellus*, as quoted hereafter.

At the same time that cold water is administered internally in the fevers above-mentioned, it is likewise applied externally, *under certain restrictions*, with great advantage. It has been employed in this manner in the Yellow Fever of the West-Indies and America; and the reports of many British practitioners concerning the result of this practice, during the late war, are much in its favour. Nor has this application been confined to the countries just mentioned; for Dr. Currie, of Liverpool, has reaped equal benefit from ablution with cold water in the common contagious fevers of this climate. Its salutary effects in these cases depend upon its being applied early during the first week, and only when the temperature of the skin is equal to, or above the natural temperature,

ture, *i. e.* during the hot fit. The water is thrown upon the patient's naked body from a bucket, and this is repeated at noon and in the evening. It is seldom necessary to continue it beyond two days.

This treatment, it is evident, is better suited to the army and navy, and to public hospitals, than to private practice. It is also better suited to the warmer regions than to this climate, where pulmonary affection is so frequently complicated with the fevers above-mentioned; a complication which would be aggravated by such treatment.—Sponging the patient's body briskly with *tepid* water (the evaporation of which produces a refrigerating effect) is a method of abstracting febrile heat, which, in this country, is more likely to be generally adopted.—Cold water is an useful application in phlegmonous inflammations; and in cases of burns and scalds, when applied immediately after the accident, it has been found to abate the pain and prevent inflammation more effectually than any other remedy. See *Earle* on Burns, 1800. *Hancocke* Febrifugum Magnum; or Common Water the best Cure for Fevers, 1722. *Hoffmann* de Aquæ frigidæ salubritate, 1729. *Cyrillus* on the Use of Cold Water in Fevers, in *Phil. Trans.* Vol. XXXVI. *Floyer* Psychrolusia, 1702. *Currie's* Reports on the Effects of Water, 1798, and in *Medical and Physical Journal*, Vol. VI.

ACIDUM

ACIDUM muriaticum, Ph. Lond. et Ed. (*Spiritus Salis marini*.) Muriatic Acid. Marine Acid. Spirit of Salt. Obtained by mixing together (cautiously) sea-salt and vitriolic acid diluted with an equal quantity of water, (or, according to the Lond. Pharmacopœia, with only five parts of water to six of the acid) and afterwards distilling. The vitriolic acid unites with the alkaline basis of the sea-salt, expelling the muriatic acid, which, being volatilized by the heat, passes over into the receiver. Ten or fifteen drops of this acid, diluted with water and rendered palatable with sugar, may be given for a dose in fevers; but in these cases the vitriolic acid is generally preferred. See Antiseptics.

ACIDUM vitriolicum dilutum, Ph. Lond. consists of one part vitriolic acid to eight of water. The *Acidum vitriolicum dilutum*, Ph. Ed. consists of one part vitriolic acid to seven of water. Dose twenty to forty drops, duly diluted with water, and sweetened with syrup. For farther remarks on this acid, see Antiseptics.—The *Spiritus Ætheris vitriolici*, Ph. Lond. (*Spiritus Vitrioli dulcis*) is obtained by distilling together in a gentle heat equal parts of rectified spirit of wine and vitriolic acid. The *Spiritus Ætheris vitriolici*, Ph. Ed. is prepared by simply mixing together

one part vitriolic æther with two parts rectified spirit of wine. This is often successfully employed to moderate heat and promote perspiration in febrile disorders. Dose from forty to eighty or a hundred drops.—For observations on the *Spiritus Ætheris vitriolici compositus*, see Antispasmodics,

PLUMBUM *acetatum*. Acetated Lead. Solutions of some of the calces of this metal in the acetous acid, when duly diluted with water, are frequently applied externally to remove inflammation. Thus by boiling the semi-vitreous calx of this metal, termed lithargyrus, in vinegar, is obtained the *Aqua lithargyri acetati*, Ph. Lond. (formerly called Extractum Saturni.) A drachm or two mixed with about a pint of water, forms an embrocation in general use. In the *Aqua lithargyri acetati composita*, Ph. Lond. (which is similar to the famous Goulard-Water) there are a drachm of the water of acetated litharge, and a drachm of proof spirit of wine to a pint of distilled water. From late observations, however, it would appear, that Cold Water alone answers, in most cases, as well as these compound metallic solutions.—In like manner solutions of the *Cerussa acetata* (formerly termed Saccharum Saturni, Sugar of Lead.—A Salt formed by the union of the calx of lead with the acetous acid) may be employed

ployed as embrocations, in bruises and external inflammations. (See Astringents.) This Saline preparation may also be combined with fatty substances, so as to form an ointment, of which there is a specimen in both our Pharmacopœias, under the title of *Unguentum Cerussæ acetatæ*; for cautions respecting the use of which ointment, and other preparations of lead, see *Thesaur. Med.* p. 170.

The titles, *Aqua lithargyri acetati*, and *Aqua lithargyri acetati composita*, are exceptionable. The first for the reason assigned in the instance of the *aqua ammoniæ acetatæ*, at p. 134, of the *Thesaur. Med.* and the last, because the epithet COMPOUND generally implies an increase of strength; whereas, in the present case, the *aqua lithargyri acetati COMPOSITA* is a much weaker preparation than the simple *aqua lithargyri acetati*. Such modes of denomination may lead to serious errors. Would it not be better to call the first *acetum lithargyri* or *acetum lithargyratum*; and the last, *acetum lithargyri dilutum* or *acetum lithargyratum dilutum*? Perhaps after all, a solution of the cerussa acetata in vinegar would, on every occasion, be preferable to these preparations.

ZINCUM vitriolatum. Vitriolated Zinc. (*Vitriolum album.* White Vitriol.) A salt formed
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by the union of calx of Zinc with the vitriolic acid. Solutions of this are frequently employed as embrocations, injections and collyria. (*Thesaur. Med.* p. 167.) See Astringents.

TABULAR VIEW
OF
THE CONTENTS OF CLASS V.

ANTISEPTICS.

(1) <i>From the Animal Kingdom.</i>	¶ <i>Artemisia maritima.</i> Sea Wormwood.
<i>Ammonia acetata.</i> Acetated Ammonia. Water of Acetated Ammonia.	<i>Cinchona officinalis.</i> Peruvian Bark.
<i>Ammonia muriata.</i> Muriated Ammonia. Salt ammoniac.	<i>Citrus medica.</i> The Lemon.
(2) <i>From the Vegetable Kingdom.</i>	<i>Conium maculatum.</i> Hemlock.
<i>Acetum distillatum.</i> Distilled Vinegar.	<i>Daucus Carota.</i> The Carrot.
<i>Acetum aromaticum.</i> Aromatic vinegar.	<i>Dorstenia Contrayerva.</i> Contrayerva.
<i>Acetum camphoratum.</i> Camphorated vinegar.	<i>Hordeum vulgare.</i> Barley Malt.
<i>Acetum nitrosum.</i> Nitrous vinegar.	<i>Laurus Camphora.</i> Campher.
<i>Anthemis nobilis.</i> Chamomile.	<i>Humulus Lupulus.</i> The Hop.
<i>Aristolochia Serpentaria.</i> Virginia Snake-root.	<i>Myrrha.</i> Myrrh.
<i>Arnica montana.</i> Leopard's ban.	<i>Oxalis Acetosella.</i> Woodsorrel.
<i>Artemisia Abrotanum.</i> Southernwood.	<i>Papaver somniferum.</i> The White Poppy. Opium.
<i>Artemisia Absinthium.</i> Common Wormwood.	<i>Pinus Larix.</i> The Larch-tree. Turpentine.
	<i>Prunus spinosa.</i> The Sloe.
	<i>Ribes nigrum.</i> The Black Currant.
	<i>Ruta graveolens.</i> Rue.
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	<i>Carbo lignarius.</i> Charcoal.
	<i>Gas acidum carbonicum.</i> Carbonic acid gas. Fixed air.
	<i>Fermentum</i>

Fermentum cerevisiæ. Yeast.	Spiritus Ætheris vitriolici.
Cerevisia. Malt liquor.	Spirit of vitriolic æther.
Vinum. Wine.	Argilla vitriolata. Vitriolated
Spiritus vini. Spirit of Wine.	argill. Alum.
(3) From the Mineral Kingdom.	Argentum nitratum. Nitrated
	Silver.
Aqua frigida. Cold Water.	Cuprum acetatum. Acetated
Acidum muriaticum. Muriatic	Copper.
Acid.	Cuprum vitriolatum. Vitriolated
Acidum vitriolicum. Vitriolic	Copper.
Acid.	¶ Natron boracicum. Borax.
Acidum vitriolicum aromaticum. Aromatised vitriolic acid.	Acidum nitricum. Nitric Acid.

CLASS V.

ANTISEPTICS.

(i) *From the Animal Kingdom.*

AMMONIA *acetata*. (See Refrigerants.) This is frequently and advantageously employed in malignant fevers.

AMMONIA *muriata*, Ph. Lond. et Ed. (Sal Ammoniacus) Muriated Ammonia. Salt Ammoniac. A neutral Salt compounded of the Volatile alkali and muriatic acid. It is given by some practitioners internally in malignant fevers, in doses of ten or thirty grains, dissolved in the camphorated mixture, bitter infusions or decoction of cinchona; but it is more frequently used in gargles and external applications.

(2) *From the Vegetable Kingdom.*

ACETUM. (see Refrigerants) Vinegar. This may be used in the manner described in the preceding class. It is frequently added to gargles. It may also be advantageously combined with

Vol. II. E Aromatics,

Aromatics, as in the instance of the *Acetum Aromaticum*, Ph. Ed. which is made by infusing rosemary, sage, lavender and cloves in vinegar. A tea-spoon full, diluted with water, may be given for a dose.—It is moreover used as an odorament.—In some of the foreign Pharmacopœias there is an *Acetum Camphoratum*, which is made by dissolving Camphor in Spirit of Wine and then adding it to the Vinegar. Dose, the same as that of the aromatic vinegar. It is in like manner used for smelling to. Vinegar boiled with honey to the consistence of a syrup (*oxymel*) is used in gargles and lotions.—By others it has been combined with nitre; and such a mixture or solution (*Acetum nitrosum*) is said to be remarkably efficacious in the scurvy. (*Patterson on the Scurvy*, 1795. *Rollo on Diabetes*, 1798.) It would seem that the vinegar is the principal agent, as nitre alone is not beneficial in this disease. (*Trotter's Essays*.) When vinegar is employed to fumigate sick-rooms it should be boiled in glazed earthen pipkins and carried about the bed, but not thrown upon hot bricks or coals, or heated metallic utensils, by which it is decomposed.

ANTHEMIS *nobilis*. (Chamœmelum. Herba et Flores.) Chamomile. (See Vol. I. p. 173.) This herb and its flowers are employed in decoctions for antiseptic fomentations and clysters. It is

is an ingredient in the *Decoctum pro Fomento*, Ph. Lond. (formerly termed *Fotus Communis*) which is made by boiling an ounce of dried chamomile, dried wormwood, and dried southernwood, and half an ounce of dried bay-leaves in six pints of water. Two species of *Artemisia* were surely not needful in this decoction. The wormwood (in a double proportion) without the southernwood, or the southernwood without the wormwood would have sufficed. The *Decoctum pro enemate*, Ph. Lond. (formerly called *Decoctum commune pro Clystère*) belongs to Emollients. The *Decoctum Chamæmeli*, Ph. Ed. (called also *Decoctum Commune*) is made by boiling one ounce of chamomile flowers and half an ounce of carraway-seeds in five pints (pounds) of water. This is used clysterwise in quantities of a pint or more, alone or with various additions.—For other remarks on this bitter vegetable and its preparations, see Tonics.

ARISTOLOCHIA Serpentaria. (*Serpentaria Virginiana*.) Virginia Snake-Root. (See Vol. I. p. 245.) Decoctions and infusions of this root, either alone or in combination with the Peruvian bark, are frequently prescribed in the advanced stages of low and malignant fevers. The proportions and doses have been already mentioned in the preceding Volume, under Diaphoretics;

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where

where also notice is taken of the uses and doses of the tincture.

ARNICA *montana*. Leopard's-bane. See Stimulants.

ARTEMISIA *Abrotanum*. Syngenesia. Polygamia æqualis. Compositæ. Discoideæ. Frutex. Southern parts of Europe (*Abrotonum*. *Folia vel summitates*.) Southern Wood. Decoctions of the tops of this bitter-aromatic shrub are frequently used as fomentations in cases of bad ulcers, and gangrenous affections. It is an ingredient in the *Decoctum pro Fomento*, Ph. Lond. as mentioned under the article chamomile.

ARTEMISIA *Absinthium*. Class and Order as the preceding. (*Absinthium*) Common Wormwood. Employed, like the southernwood, in antiseptic fomentations.

¶ ARTEMISIA *maritima*. Class and order as above. (*Absinthium maritimum*.) Sea Wormwood. Used in the same manner as the Common Wormwood; and is an ingredient in the *Decoctum pro Fomento*, Ph. Lond.—There is no use in swelling the catalogue of the materia medica with two species so similar in their sensible qualities and medicinal effects. One of the two, the artemisia

misia absinthium, or this species, should be expunged. For other remarks on this vegetable and its preparations, see Tonics and Anthelmintics.

CINCHONA officinalis. Pentandria. Monogynia. Contortæ. Arbor. Peru. (Cortex Peruvianus.) Jesuit's bark. Peruvian bark. In petechial and other malignant fevers, in the putrid sore throat, and in gangrenous affections, the powder, decoction and tincture of this bark, are given with good effect, joined with acids, port-wine, camphor, and opium. It may also be administered clysterwise in these cases, and particularly to children labouring under the confluent small pox accompanied with a typhoid condition of the system. (Thesaur. Med. p. 184.) For an account of the preparations and doses of this valuable article of the materia medica, see Astringents and Tonics, under which classes its other and more general uses will be noticed.

CITRUS medica. (Limon.) The Lemon. (See Refrigerants.) The acid juice of this fruit is given in conjunction with the camphorated-mixture, decoction of cinchona and other antiseptics in malignant fevers, the putrid sore throat and gangrenous affections. (Thesaur. Med. p. 174—
E 3 176.)

176.)—Added to red port-wine and water, it forms a useful beverage (called *Negus*) in all such cases.—The *Succus Limonis Spissatus*, Ph. Lond. duly diluted with water, supplies the place of the fresh juice.—Repeated trials have proved that the acid juice of the lemon is antiscorbutic in a very high degree. In consequence of the testimonies produced in its favour by various physicians and surgeons, it has become a standing remedy in our Navy. The recent juice, alone, or sweetened with sugar (and in some cases mixed with port wine) may be given in the quantity of many ounces in the space of twenty-four hours. If it excites diarrhœa, astringents and aromatics must be joined with it. Where the fresh juice cannot be procured, the crystallized citric acid (prepared by saturating the filtrated juice with chalk, and afterwards adding to the washed precipitate vitriolic acid, according to the processes of *Scheele* and *Dize*.—See *Fourcroy* Systeme des Connaissances Chimiques, Tom. VII.) may be employed in its place. *Lind* on the Scurvy, 1754. *Blane's* Diseases of Seamen, 1789. *Trotter* on the Scurvy, 1792, and his *Medicina Nautica*, 1797 and 1799.

CITRUS Aurantium. Class and order as above.
(*Aurantiam hispalense*) The Seville Orange. The juice

juice of this may be given in scorbutic cases in the same manner as the juice of the lemon. For its Conserve, see Tonics.

CONIUM maculatum. Pentandria. Digynia. Umbellatæ. Indigenous. (Herba.) Hemlock. In this place we shall only remark that the inspissated juice, or extract of this plant, is often administered internally in carcinomatous and other malignant ulcers; and that its decoction is employed externally, as a fomentation, in the same cases. Further, the boiled herb is used in the form of a cataplasm. See Narcotics.

DAUCUS Carota. (See Vol. I. p. 224.) The Carrot. Poultices made of the scraped root have been applied with good effect to ill-conditioned ulcers. *Thesaur. Med.* p. 180.

DORSTENIA Contrayerva. (See Vol. I. p. 249.) Contrayerva. This is given alone or in combination with the bark and acids, in typhus and other malignant fevers; as mentioned in the place above referred to.

HORDEUM vulgare. (See Demulcents) Barley. Maltum vel Malta. Malt. The infusion termed *wort* was formerly much used as an antiscorbutic in the navy; but of late years it has given place

to the superior agency of the lemon juice or citric acid. It is a great objection to the use of Wort, that it aggravates the diarrhœa with which scorbutic patients are often harassed. *Macbride's New Method of Treating the Scurvy*, 1767, and his *Experimental Essays*, 1764.

LAURUS *Camphora*. (See Vol. I. p. 251.)
Camphor. This resinous substance, whose preparations and doses have been already mentioned in the preceding Volume as above referred to, has been often successfully employed in petechial and other malignant fevers (*Riverius—Hoffman—Humbam—Pringle*) and in gangrenous affections; in which last it is used externally as well as internally (*Collin Observationes circa Morbos*.) In these cases it is combined with the Peruvian bark, wine and acids. (*Thesaur. Med.* p. 171—174) It has also been administered clysterwise with the best effect to children labouring under the confluent small pox accompanied with a typhoid state of the system. *Buckner de usu Cort. Per cum Camphora remixt. in febribus ex putredine ortis*, 1762.

HUMULUS *Lupulus*. Dicœcia. Pentandria. Scabridæ. Indigenous. (*Lupulus, Coni.*) The Hop. Poultices made of the dried blossoms or cones; macerated in water, have lately been applied

plied to ill-conditioned and gangrenous ulcers, with very good effect. *Trotter's Med. Nautica*, Vol. II. *Duncan's Annals of Medicine*, Vol. II.

MYRRHA. (See Vol. I. p. 147.) Myrrh. Solutions of this gum-resin in spirit of wine (see *Tinctura Myrrhæ*, Vol. I. p. 294) are frequently employed in lotions for foul ulcers, and in gargles against the gangrenous fore-throat. In the last-mentioned cases it's more volatile particles may be conveyed to the fauces along with the vapour of hot water or vinegar. *Thefaur. Med.* p. 183.

OXALIS *Acetofella*. Decandria. Pentagynia. Gruinales. Indigenous. (*Lujula*. *Folia*.) Woodforrel. The juice of this plant abounds in a peculiar acid termed the Oxalic; which, like the citric, is powerfully antiscorbutic.

The *Conserva Lujulæ*, Ph. Lond. (Conserve of Woodforrel) is prepared by bruising the leaves in a marble-mortar, and then beating them together with thrice their weight of double-refined sugar. A tea-spoon full or more may be given occasionally.—The expressed juice may be taken in the same manner as lemon-juice. What is termed the *essential Salt of Woodforrel* (obtained from the expressed juice by filtration, evaporation and crystal-

crystallization) is not pure oxalic acid, but an acidulous salt (like the crystals of tartar) composed of the vegetable alkali supersaturated with the acid of sorrel. Half an ounce of this salt dissolved in fourteen or sixteen ounces of hot water, duly sweetened, forms, when cold, a pleasant and useful beverage in malignant fevers.—The pure oxalic acid which is identical with the acid of sugar, is not used in medicine. *Savary de Sale Essentiale Acetosellæ*, 1773. *Fourcroy Systeme des Connaissances Chimiques*, Tom. VII.

PAPAYER *Somniferum*. (See Narcotics.) The White Poppy. Its inspissated juice, called Opium, is given freely, in conjunction with the Peruvian bark and wine, in cases of sphacelation. (*Thesaur. Med.* p. 172.) It is prescribed in more moderate doses in malignant fevers, combined with spices (as in the instance of the *Confectio Opiata*, Ph. Lond.) or dissolved in spirit of wine, (as in the *Tinctura Opii*, Ph. Lond. et Ed.) and added to decoctions of cinchona, contrayerva, and serpentaria, or to camphorated mixtures. But for observations on these and other opiate preparations, the reader is referred to Narcotics.

PINUS *Larix*. Monœcia. Monadelphia. Coniferæ. Arbor. Mountainous parts of Europe. (*Terebinthina Veneta*) The Larch-tree. Succus resinosus

resinosus ex arbore sauciata promanans, *terebinthina* dictus. Venice turpentine is the juice which flows from incisions made in the trunk of the aforesaid tree. It is applied externally by the surgeons in foul ulcers and gangrenous affections; as well as its distilled oil (*Ol. Terebinthinæ*, Ph. Lond. et Ed.) commonly called Spirit of Turpentine; which is obtained by distilling the turpentine with somewhat more than an equal quantity of water.—Yellow resin (*Resina flava*) is the substance which remains after this distillation; and is much used in antiseptic ointments and cerates. For other remarks on Turpentine see Stimulants.

PRUNUS spinosa. The Sloe. See Astringents.

RIBES nigrum. The Black Currant. See Astringents.

¶ *Ruta graveolens*. Decandria. Monogynia. Multifiliquæ. Southern parts of Europe. (Herba.) Rue. An infusion of this herb in vinegar was formerly in much esteem as an antiloimic, but is now justly disregarded as such. It has also been employed in fomentations to gangrenous ulcers; but as it possesses no superiority over chamomile or wormwood, for these purposes, it may well be erased from the catalogue of the materia medica.

CARBO

CARBO *lignarius*. (Carbonium) Charcoal. Carbon. Charcoal duly prepared from wood, and reduced to a fine powder, has been applied to foul ulcers and mortified parts with apparent advantage. The powder may be mixed up with boiled bread and milk, and applied in the form of a poultice. *Crell's* Chemical Journal (English Translation) Vol. III. *Beddoes* on Factitious Airs; and *Simmons' Med. Facts and Observ.* Vol. VII.

GAS ACIDUM *carbonicum*. Aër fixus. Gas Mephiticum. Carbonic Acid gas. Fixed Air. Mephitic Air. This elastic fluid is obtained for medicinal purposes by pouring vitriolic acid upon chalk or marble. The gas thus extricated may be combined with water (pure or with additions) by means of an apparatus, in common use, invented by Nook. Water thus impregnated with the carbonic acid gas is prescribed with good effect to patients labouring under typhus and other malignant fevers. It may be drank in the same quantities as pure water.—Much of the efficacy of the acidulous soda-water depends upon its saturation with this air; which is likewise a principal agent in the saline effervescing draughts (being extricated from the prepared kali on the admixture of vinegar or lemon-juice) and in all fermented bottled liquors, when in a sparkling state.

Besides

Besides being taken in these ways into the stomach, it has also been frequently drawn into the lungs in certain diseases of that organ, and particularly in the advanced stage of phthisis pulmonalis. (*Percival's Essays*, Vol. I.) In this disorder, however, it has disappointed expectation in some late trials. Externally it has been applied to foul and cancerous ulcers with temporary good effect. (*Ewart's two Cases of Cancer*, 1794.) But even here it seems to act merely as a palliative. Whatever efficacy the Fermenting-Cataplasm (*Thesaur. Med.* p. 180) possesses, it is wholly to be ascribed to this gas which is gradually evolved from it. See *Beddoes's* publications on Facitious Airs. Also, *Pearson* on the Different Kinds of Air, 1795.

FERMENTUM *cerevisiæ*. Spuma *cerevisiæ* fermentantis. Flos *cerevisiæ* fermentantis. Yeast or Yest. Within these few years this substance has been cried up as an excellent remedy in malignant fevers. Various testimonies have been produced for and against its antiseptic virtues. At present the evidence on both sides is nearly equal; it is therefore a matter which must lie over for future decision. It is given internally in doses of a table-spoon full, mixed with water, porter, or wine and water. [In the last case, how much may be owing to the Wine!] Externally it has been

been applied to foul ulcers in the form of a cataplasm. It seems to promise more success as an outward than as an inward remedy. Whatever may be its effects, they are to be ascribed partly to the carbonic acid and partly to the bitter principle of the hop which it contains. See *Beddoes's Considerations on Factitious Airs, and Medical and Physical Journal* for 1800 and 1801.

CEREVISIA. Malt liquor. (See Vol. I. p. 102) Fresh table beer, spruce beer, porter, and bottled beer, are good antiscorbutics, and are often administered in low and malignant fevers, with the best success. It is only when they have too laxative an effect that their use in such cases becomes improper.

VINUM. Wine. (See Vol. I. p. 104) In the advanced stage of typhus and other malignant fevers, and in mortifications, Port Wine is perhaps the most powerful of all antiseptics. In such disorders it may be given to the quantity of several pints within the space of twenty-four hours.—Claret is preferable to port wine in many of these cases.—Perry and Cyder, which may be considered as weaker sorts of wine, may be employed for the same purposes.—In the fevers above-mentioned it is a proof that wine and other fermented liquors agree, if, during their use, the
tongue

tongue becomes more moist, the skin more soft, the pulse less frequent and more full, and the affection of the brain more moderate. Where the contrary effects are observed, they should be diminished or discontinued.

SPIRITUS vini. (Vol. I. p. 105) Spirit of Wine. Ardent Spirits. Brandy is sometimes employed internally in the last stage of petechial fevers, gangrenous fore throats, and in the black-vomiting of the yellow-fever; in which last it is perhaps more to be relied upon than any other medicine; but in the common low and malignant fevers of this country it is seldom adviseable to exhibit it otherwise than in a state of dilution with water and admixture with acids, as in the state of Punch; a liquor which may in some measure supply the place of wine.—Externally spirit of wine is employed, alone or combined with camphor, as an embrocation and fomentation in bruises and mortification.

(3) *From the Mineral Kingdom.*

AQUA frigida. In malignant and pestilential fevers Cold Water, employed internally and externally, in the manner and with the cautions mentioned under Refrigerants, proves a most powerful antiseptic. If saturated with the carbonic

bonic acid gas or mixed with vinegar, it is, in the opinion of some practitioners, still more efficacious.

ACIDUM muriaticum. Muriatic Acid. (*Spiritus Salis Marini.*) See Refrigerants. This acid, added to water in such quantities as render it pleasantly sharp to the taste, affords an useful medicine in typhus and other malignant fevers; but we must not imagine with a modern German physician, Professor *Reich*, that this and the other mineral acids are, without the aid of other agents, adequate to the cure of all fevers. They are even hurtful in some conditions of fever. It may likewise be prescribed in gargles in the cynanche gangrænosa. For these purposes however does it possess any advantage over the vitriolic acid? (*Fordyce* on the Virtues of Muriatic Acid in the cure of putrid diseases, 1789.) The muriatic acid vapour, extricated from sea-salt by pouring strong vitriolic acid upon it, is often employed for fumigating the apartments of those who have laboured under infectious fevers. The oxygenated muriatic vapour or oxy-muriatic vapour (obtained by mixing pulverized manganese with the salt, before the vitriolic acid is added) answers still better for the fumigating process than the common acid vapour. See *Guyton-Morveau* in the *Annales de Chimie*, 1801, and *Rollo's* Account of the Artillery Hospital at Woolwich, 1801.

KALI

KALI oxymuriatum. Lixiva oxymuriata. Murias oxygenatus potassæ. Oxymuriated kali. Oxymuriated lixiva. Oxygenated muriat of potash. A salt compounded of the vegetable alkali and the oxygenated muriatic acid. It has lately been employed with good effect in cases of typhus. Dose from three to five grains. Garnett in *Duncan's Annals of Medicine*, Vol. II. and III. Also *Medical and Physical Journal*, 1801.

ACIDUM vitriolicum. Vitriolic acid. (See Refrigerants) This acid is employed in malignant fevers, diluted with water, in the same manner as the muriatic acid; but it is more frequently mixed with decoctions of cinchona, angustura, contrayerva, &c. It is also employed in gargles. Dose of the diluted acid (*Acidum vitriolicum dilutum*, Ph. Lond.) twenty or forty drops.—The *Acidum vitrioli aromaticum*, Ph. Ed. (formerly called *Elixir vitrioli acidum*) is made by mixing (cautiously) six ounces of vitriolic acid with two pounds of rectified spirit of wine, and digesting in a gentle heat for three days; afterwards adding an ounce and a half of cinnamon, and one ounce of ginger, and digesting again for six days; then filtering. Dose thirty to sixty drops, in water, decoction of cinchona, &c.—*Spiritus Ætheris vitriolici*, Ph. Lond. et Ed. (formerly called *Spiritus vitrioli dulcis*.) see p. 43. Sixty or eighty drops of this dulcified

Vol. II. F acid

acid may be given for a dose (joined with camphor or other aromatics) in malignant fevers. See *Carmichael Smyth* in *Med. Communications*, Vol. I. Also on the Jail Distemper, 1795.

ARGILLA vitriolata. (Alumen) Vitriolated Argill. Alum. Joined with the Peruvian bark, this earthy salt is sometimes prescribed in malignant fevers accompanied with hæmorrhages. (*Wall's Medical Tracts*, 1780.) It is a common and useful addition to antiseptic gargles, and is also employed in lotions against aphthous affections of the mouth and tongue. For other remarks on this substance, and for an account of its preparations and doses, see Astringents.

ARGENTUM nitratum. (Causticum lunare.) Nitrated Silver. Lunar Caustic. Solutions of this metallic salt have lately been applied with advantage to foul ulcers. (*Home*, as before quoted; and *Rollo* on Diabetes, 1798.) Of its use internally notice will be taken under Antispasmodics.

CUPRUM ammoniatum. Ammoniated Copper. The *Aqua Cupri ammoniati*, Ph. Lond. (formerly *Aqua sapphirina*) may be employed externally for the same purposes as the other preparations of this metal hereafter-mentioned. It is obtained by adding one drachm of sal ammoniac to a pint of lime-

lime-water; and letting them stand together in a copper-vessel until the ammonia is saturated with the copper.—It is also used as an application to the eye in certain affections of that organ.—There is a preparation similar to the above in the Ph. Ed. under the title of *Aqua Æruginis ammoniatæ*. It is made by mixing together eight ounces of lime-water, two scruples of sal ammoniac, and four grains of verdigrise. After standing for twenty-four hours it is filtered.

CUPRUM acetatum. (*Ærugo*.) Acetated Copper. Verdigrise. This metallic preparation is not a perfect neutral salt, but consists of carbonate of copper combined with some acetous acid. It is employed by the Surgeons to cleanse foul ulcers. *Oxymel Æruginis*, Ph. Lond. (formerly called *Mel Ægyptiacum*) is made by dissolving one ounce of verdigrise in seven ounces of vinegar, then adding fourteen ounces of honey, and boiling the whole to a proper consistence. It is applied to aphthæ and other ulcerations. In the Ed. Ph. there is an *Ung. Æruginis* which is applied to foul sores and ulcerated conditions of the eyes and eye-lids.

CUPRUM vitriolatum. (*Vitriolum cœruleum*.) Vitriolated Copper. Blue vitriol. Solutions of this metallic salt are employed as lotions to foul ulcers. The *Aqua cupri vitriolati*, (*Aqua Styptica*)

F 2

Ph. Ed.

Ph. Ed. though commonly applied to stop hæmorrhages, may be used for the same purposes.

¶ *Natron boracicum.* (Borax.) This is an imperfect neutral salt, in which the boracic acid is supersaturated with the natron or soda. It was formerly much employed in lotions against aphthous affections of the mouth and tongue, combined with honey or honey of roses; but for this purpose it is inferior to alum or vitriolated zinc; and is therefore now seldom prescribed.

Acidum nitricum. Nitric acid. The nitric acid vapour, extricated from nitrated kali by pouring upon it vitriolic acid, is employed for fumigating hospitals and sick-rooms, in the same manner as the oxy-muriatic vapour. N.B. In this mode of fumigation, as well as in that of the muriatic acid, glazed earthen pipkins or gallipots must be employed. See *Smyth's Account of Experiments made on board the Union Hospital-Ship, 1796.* Also on Nitrous Fumigation, 1799.

The Nitric Acid (*Acidum nitrosum*, Ph. Lond.) diluted with water, in the proportion of about a scruple of the acid to half a pint of water, has likewise been successfully employed as a lotion for foul ulcers. See *Home's Practical Observations on Ulcers, 1797.*

TABULAR

TABULAR VIEW
OF
THE CONTENTS OF CLASS VI.

ASTRINGENTS.

N. B. Several of the Articles here enumerated cannot in strict propriety of language be termed astringents, but are inserted amongst such medicines for the reason assigned at page 71.

(1) <i>From the Animal Kingdom.</i>	<i>Maranta arundinacea. Indian</i>
<i>Acipenser Huso. The Isinglass.</i>	<i>Arrow-root.</i>
<i>Cervus Elaphus. The Stag.</i>	<i>Mimosa Catechu. Catechu.</i>
<i>Cornu Cervi ustum. Burnt</i>	<i>Infusum catechu. Tinctura</i>
<i>Hartshorn.</i>	<i>Catechu. Infusion and Tincture of Catechu.</i>
(2) <i>From the Vegetable Kingdom.</i>	<i>Papaver Somniferum. The</i>
<i>Æsculus Hippocastanum. The</i>	<i>White Poppy.</i>
<i>Horse Chesnut.</i>	<i>Opium purificatum. Purified</i>
<i>Arbutus Uva Ursi. Bear's</i>	<i>opium.</i>
<i>Whortleberry.</i>	<i>Pulvis opiatu. Opiate Powder.</i>
<i>Cinchona officinalis. Peruvian</i>	<i>Pulvis cretæ compositus cum</i>
<i>Bark.</i>	<i>Opio. Compound powder of</i>
<i>Cycas Circinalis. The Sago-</i>	<i>Chalk with Opium.</i>
<i>Palm.</i>	<i>Confectio opiata. Opiate Con-</i>
<i>Hæmatoxylum campechianum.</i>	<i>fession.</i>
<i>Logwood.</i>	<i>¶ Polygonum Bistorta. Bis-</i>
<i>Juglans regia. The Walnut.</i>	<i>tort.</i>
<i>Kino. The Red astringent</i>	<i>Prunus spinosa. The Sloe.</i>
<i>Gum of Gambia. Kino.</i>	<i>Pterocarpus Draco. Dragon's</i>
	<i>Blood.</i>

<i>Punica Granatum.</i> The Pome- granate.	(3) From the Mineral King- dom.
<i>Quassia Simarouba.</i> <i>Simarouba.</i>	<i>Argilla vitriolata.</i> Vitriolated
<i>Quercus Cerris.</i> The small prickly cupped Oak.	<i>Argill</i> or Alum.
<i>Gallæ.</i> Gallnuts.	¶ <i>Bolus Gallicus.</i> French Bole.
<i>Quercus Robur.</i> The Common Oak.	¶ <i>Bolus Armenus.</i> Armenian Bole.
<i>Rosa Gallica.</i> The Red Rose.	<i>Calx viva.</i> Quick-lime.
<i>Salix alba.</i> The White Willow.	<i>Creta præparata.</i> Prepared Chalk.
<i>Salix fragilis.</i> The fragile Willow.	<i>Plumbum acetatum.</i> Acetated Lead.
<i>Salvia officinalis.</i> Sage.	<i>Cerussa acetata.</i> Acetated
¶ <i>Symphytum officinale.</i> Com- frey.	<i>Cerusse.</i>
<i>Tormentilla erecta.</i> Tormentil.	<i>Zincum vitriolatum.</i> Vitri- olated Zinc.
<hr/>	
<i>Refina Flava Novi Belgii.</i> Yel- low Gum of Botany Bay.	

CLASS VI.

ASTRINGENTS.

SOME of the following substances (such as the ichthyocolla and cornu cervi among the animal; fago and arrow-root among the vegetable; chalk and bole among the mineral substances) do not strictly belong to this class; being destitute of the astringent principle: but as they are frequently employed for restraining alvine and other profluvia, and in that respect co-incide with the genuine astringents; it was thought right to insert them here, referring for observations upon them to their respective places under Demulcents and Absorbents.

(1) *From the Animal Kingdom.*

ACIPENSER *Huso*. The Hinglas Fish. (See Demulcents.) Ichthyocolla. Jellies made by boiling this substance in milk or water, sweetened and aromatized, are useful in cases of chronic diarrhoea.

CERVUS *Elaphus*. The Stag. (Vol. I. p. 6) Jelly prepared from the rasped horns is suited to the same cases as the preceding.—The Decoction of the burnt bones possesses similar properties, and is especially useful where the lax state of the intestines proceeds from, or is accompanied with, acidity. See Absorbents.

(2) *From the Vegetable Kingdom.*

The number of astringent vegetables is so great, that the bare catalogue of them would occupy a large portion of an octavo volume. We shall therefore content ourselves with noticing very few besides those which have a place in the Pharmacopæias of the London and Edinburgh colleges.

¶ *ÆSCULUS Hippocastanum*. The Horse Chestnut. See Tonics.

¶ *ARBUTUS Uva Ursi*. Decandria. Monogynia. Bicornes. Frutex. Indigenous. (Folia,) Bear's Whortleberry. About thirty years ago this plant was held in high esteem as a remedy in calculous and nephritic complaints, and was particularly extolled by the celebrated *de Haen* of Vienna. Since that time its doubtful efficacy in the majority of such cases has caused its reputation
to

to dwindle away, and it is now rarely, if ever, prescribed in this country. Dose of the powder from fifteen grains to half a drachm. It is also given in infusions. (*Thesaur. Med.* p. 189.) *De Haen* Rat. Medendi, Vol. I. II. and III. *Murray* Commentatio de Arbuto Uva Ursi, 1765, and reprinted in Vol. I. of his Opuscula.

CINCHONA officinalis. (See Antiseptics) Peruvian Bark. The decoction of this bark, combined with alum and other astringents, is often employed in cases of hæmorrhage, diabetes, and fluor albus. See Tonics.

CYCAS Circinalis. The Sago-Palm. See Demulcents.

HÆMATOXYLUM campechianum. Decandria. Monogynia. Lomentaceæ. Arbor. West-Indies. (*Lignum Campechianum.* *Lignum campechense.*) Logwood. This is a pleasant and useful astringent in cases of obstinate diarrhœa, and in the advanced stages of dysentery. A decoction may be prepared by boiling the wood in water; but the Extract is preferred by most practitioners dissolved in peppermint-water, or cinnamon-water, and given in the form of draughts or a mixture. (*Thesaur. Med.* p. 195.) It may also be administered clysterwise. Dose of the extract from fifteen
grains

grains to half a drachm, or more. It is to be impressed on the minds of young practitioners, that this and the other astringents hereafter mentioned, are highly improper in the early periods of dysenteric affections; it is only in the protracted stage that they are useful. In this respect the preliminary observations to the class Absorbents will apply here. See also the sixth and seventh chapters of *Zimmerman's Treatise on the Dysentery*.

JUGLANS regia. Monœcia. Polyandria. Amentaceæ. Arbor. Persia, but naturalized to the temperate parts of Europe. (Fructus immaturus. Putamina Nucum viridia.) The Walnut. A decoction made by steeping an ounce of the green outer shells of the fruit for three or four hours in a pint of water, then boiling the whole together for a quarter of an hour and straining, has been applied with good effect, by means of lint or compresses of fine rag wet therewith, to fungous and other ulcers. (Transactions of the Josephine Academy at Vienna, Vol. I.) For other remarks on this fruit and its preparations, see Anthelminthics,

KINO, Gummi rubrum astringens Gambiense. (Gummi-resina.) Kino. The red astringent gum. The red gum of Gambia. This gum-resin is frequently

quently and successfully employed in diarrhœas, fluor albus, and uterine hæmorrhages, in doses of fifteen to thirty grains, diffused by means of mucilage with aqueous and aromatic liquors. In the Edinburgh Pharmacopœia there is a combination of it with alum, under the title of *Pulvis Aluminis compositus* (vulgo *Pulvis Stypticus*.) It consists of alum four parts, kino one part. Dose fifteen grains to half a drachm, in pulmonary and uterine hæmorrhages. It is also an ingredient in the *Electuarium catechu*, Ph. Ed. See *Mimosa catechu*. The *Tinctura Kino*, Ph. Ed. is made by digesting for eight days two ounces of this gum-resin in a pound and a half of proof spirit. Dose one or two drachms mixed up with aqueous liquors by means of mucilage. *Fothergill* in *Med. Obs. and Inquiries*, Vol. I. and reprinted in his Works.

MARANTA *arundinacea*. Indian Arrow-root, See Demulcents.

MIMOSA *Catechu*. Polygamia. Monœcia. Lomentaceæ. Arbor. East-Indies. (*Catechu*. *Extractum Catechu*. *Succus spissatus Terra Japonica dictus*.) The inspissated gummi-resinous juice of this tree, called by the unappropriate name of terra japonica, is one of the most valuable medicines of the astringent-class, and is frequently employed, with the best success, in the same cases

as

as the kino. Being less stimulant than the last-mentioned resin, it is better suited to the majority of hæmorrhagic cases, as well as to some species of alvine fluxes. It is equally useful in gleets and fluor albus; nor has it been wanting of efficacy in diabetes. In the form of a dentifrice or collutory it has been employed with advantage in scorbutic affections of the gums and mouth. By reason of the mucilaginous, and extractive matter which it contains, it is miscible *per se* with aqueous liquors. It is given in doses of one or two scruples. The *Electuarium Catechu*, Ph. Ed. (formerly called *Confectio Japonica*) is composed of catechu four ounces, kino three ounces, cinnamon and nutmeg, each one ounce, opium (softened with white wine) one drachm and a half, syrup of red-roses (boiled to the consistence of honey) two pounds and a quarter. Dose, two scruples to a drachm and a half, in diarrhœas, and in the advanced stages of dysentery. The *Infusum Catechu*, Ph. Ed. (formerly called *Infusum Japonicum*) is made by macerating two drachms and a half of catechu, and half a drachm of cinnamon in seven ounces of boiling water, for a couple of hours; then filtering and adding one ounce of simple syrup. Dose two or three table-spoons full, occasionally. The *Tinctura Catechu*, Ph. Lond. (formerly called *Tinctura Japonica*) is made by digesting, for ten days, three ounces of catechu, and two ounces of

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cinnamon,

cinnamon, in a quart of proof spirit. The *Tinctura Catechu*, Ph. Ed. is made by digesting for eight days the same quantities of catechu and cinnamon, in two pounds and a half of proof spirit. Dose of either one or two drachms, incorporated by means of mucilage with common water, cinnamon-water, peppermint-water, camphor-mixture, &c.—(*Thesaur. Med.* p. 197.) This, as Professor Murray has remarked, is the least useful of all its preparations.—Kerr in Vol. V. of *Med. Obs. and Inquiries*. Murray de Catechu, 1779, and reprinted in Vol. II. of his *Opuscula*.

PAPAYER *Somniferum*. (See Narcotics.) The White Poppy. The exsiccated juice (Opium) and Tincture, are frequently employed alone and in combination with absorbents, astringents, and aromatics, (see *Pulvis Opiatus*, and *Pulvis Cretæ compositus cum Opio* under Absorbents; and *Confectio Opiata* under Narcotics) in alvine fluxes, in diabetes, and in uterine and pulmonary hæmorrhages; in which last, however, it is obvious that aromatic additions to it are highly improper. In cholera, and in the symptomatic diarrhœas which occur in the advanced stage of malignant fevers, the different forms of opiates are eminently useful by restraining the inordinate evacuations, and thereby preventing the dangerous consequences that would otherwise follow from debility and exhaustion.

exhaustion. They are likewise serviceable in certain stages of dysentery; in which, however, their premature exhibition has often been productive of great mischief. *Sir John Pringle* has remarked, that opiates should never be given in dysentery until the patient has had sufficient evacuations, otherwise by confining the morbid cause, they aggravate all the symptoms. *Sir George Baker* found them not advisable in this disorder until the stools became nearly of their natural consistence. *Dr. Donald Monro* observed in his practice that when administered in the first period of dysentery, opiates generally checked the alvine discharge too suddenly and strongly, whence the tormina and fever were increased. He, therefore, waited till the bowels had been well evacuated, and then prescribed them only in moderate doses, (chiefly at night) so as to alleviate pain and procure some sleep; but never in such quantities as to induce stupor, or entirely restrain the flux. (See *Zimmerman* on the Dysentery, Chap. VII. where similar precautions are adduced from other celebrated practitioners.) Joined with alum and the extract of cinchona, opium is advantageously employed in diabetes; and in combination with vitriolated zinc and digitalis, in uterine and pulmonary hæmorrhages.

¶ POLYGONUM *Bistorta*. Octandria. Trigynia.
Oleraceæ.

Oleraceæ. Indigenous. (Biftorta. Radix.) Biftort.—The root of this plant has long held a place in the Pharmacopœias of the London and Edinburgh colleges. It undoubtedly possesses considerable astringency; but by no means more than several other vegetables of this class, and even less than some of them. We therefore deem it to be wholly superfluous.

PRUNUS *spinosa*. Icosandria. Monogynia. Pomaceæ. Frutex. Indigenous. (Prunus sylvestris. Fructus.) The Sloe. The fruit of this shrub is a cooling, powerful, astringent; and accordingly the Conserve prepared by mixing its pulp with thrice its weight of fine sugar, is occasionally employed for checking diarrhœas. Infusions are also sometimes prepared from the conserve and employed as gargles, in cases of angina, and scorbutic affections of the gums.

PTEROCARPUS *Draco*. Diadelphia. Decandria. Papilionaceæ. South America and the East-Indies. Arbor. (Succus resinofus Sanguis Draconis dictus ex arbore incisa promanans soleque exsiccat) Dragon's blood. The dark red substance which goes under the name of Dragon's blood, is said to be obtained from other trees besides this; as well as from a species of the Rattan cane, 'Calamus Rotang, (see Murray's Apparatus, Vol. V. p. 301, and

and *Woodville's Med. Bot.* Vol. III. p. 475) growing in Cochinchina, Malacca, and other parts of the East-Indies. It is of a gummi-resinous, nature and possesses considerable astringency; in consequence of which it is sometimes prescribed in laxities of the intestinal canal, in fluor albus, and in cases of hæmorrhage. For most of these purposes, however, it is inferior to the catechu and kino. Dose, fifteen or twenty grains. From an opinion, which seems to rest on a very slight foundation, it has for a great length of time been used externally, in the composition of healing and strengthening plasters. It is one of the ingredients in the *Emplastrum Thuris compositum*, Ph. Lond.

PUNICA Granatum. Icosandria. Monogynia. Pomaceæ. Arbor. Southern parts of Europe. (*Granatum.* Flores *Balaustia* dicti; nec non cortex Fructûs.) The Pomegranate. The flowers, called *Balaustines*, and the rind of the fruit are powerfully styptic. Decoctions prepared from the flowers, and rind (*Thesaur. Med.* p. 199) have sometimes been prescribed for restraining the colliquative diarrhœa and sweats which accompany hectic fever; but they are more frequently and perhaps more properly employed in the form of injections and gargles, in cases of leucorrhœa and angina.

QUASSIA

QUASSIA *Simarouba*. (See Tonics.) *Simarouba*.

QUERCUS *Cerris*. Monœcia. Polyandria. Amentaceæ. Arbor. Southern parts of Europe and the Levant. (Gallæ, nidi seu domicilia insectorum ex Cynipidis genere. Gallæ turcicæ.) The small prickly cupped Oak. Gallnuts, which are the nests or habitations of insects belonging to the genus cynips, are found upon the common oak as well as upon this species; but as those which are imported from Aleppo, and which are collected from the quercus *cerris*, are what (being deemed the best) are met with in the shops; it appeared right to notice them apart under this article. Although these excrescences, improperly termed nuts, are the covering or abodes of insects, yet they are of a vegetable nature, and derive the whole of their astringency from the oak itself. Of all astringent substances, Gallnuts are the most powerful. They are generally considered as too rough to be taken into the stomach; though authorities are not wanting for their employment internally against agues and other disorders. According to *Dr. Cullen*, they may be safely given in combination with gentian and other bitters; but the remark made on this subject by *Murray* (*Apparatus Med.* Vol. VI. p. 9) appears to us very judicious; viz. that we should be cautious of using such strong astringents as the present in the

treatment of intermittents, since they only suspend for a while, instead of completely removing the disorder, and are apt to lay the foundation for visceral obstructions.—With more propriety are Gallnuts prescribed in infusions for injections and gargles; and it is said that one part of the pulverized nuts mixed up with eight parts of hog's lard (*Thesaur. Med.* p. 203) forms an useful application against the blind piles.

QUERCUS Robur. Class and order, the same as above. Indigenous. (Cortex.) The Common Oak. Like other astringent vegetable substances oak-bark has been employed for the cure of intermittent fevers, diarrhoea and fluor albus; but in regard to its internal exhibition in these and other disorders, the caution thrown out above on the subject of galls, will in a great measure apply here. By combining it, indeed, with bitters (*Thesaur. Med.* p. 188) and perhaps with a small quantity of opium, the mischief to be apprehended from its strong stypticity may, in some degree, be counteracted. Let us not however deceive ourselves with the idea that, by such modes of combination, we can render the bark of this tree equally efficacious as a febrifuge and a tonic with the Peruvian bark; yet it has been termed the Cinchona of Europe. (*Helvig de Quinquina Europæorum*, 1712.) Decoctions of Oak bark are employed

employed as injections in uterine hæmorrhages and leucorrhæa; and as gargles in anginous affections of the uvula and tonsils; in the last of which cases alum is an useful addition. (*Theaur. Med.* p. 206.)

ROSA gallica. Icosandria. Polygynia. Senticosæ. Southern parts of Europe. Frutex. (*Rosa rubra.* Petala.) The Red Rose. By maceration in hot water the petals, or leaves of the blossoms, yield a pleasant lightly astringent liquor, which is frequently prescribed (with the addition of the vitriolic acid, and a few drops of tincture of opium) in pulmonary and uterine hæmorrhages, and in the colliquative sweats of phthisis pulmonalis and hectic fever. (*Theaur. Med.* p. 196.) And, by way of gargle, with the addition of alum in cases of sore throat. (*Theaur. Med.* p. 206.) Of itself it is not sufficiently powerful for restraining alvine fluxes; but in such affections the unacidulated infusion may be employed, when combined with the extract of cinchona, or with catechu or kino.—The *Infusum Rosæ*, Ph. Lond. (formerly called *Tinctura Rosarum*) is made by macerating half an ounce of the dried petals in two pints and a half of boiling water for half an hour, and adding, while the infusion is going on, three drachms of diluted vitriolic acid. When cold, the liquor is filtered, and sweetened with an ounce and a half of white

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sugar.

sugar. N. B. This infusion must be prepared either in glass or china vessels.—Half an hour appears to be too short a time for the maceration; accordingly, in their Formula, the Edinburgh College have directed the petals and water to stand together for the space of four hours. In other respects the *Infusum Rosarum*, Ph. Ed. coincides with that of the London College, excepting that in the Edinb. there is half a drachm of the undiluted vitriolic acid to two pints and a half of the infusion, which gives it a greater degree of acidulation than the London infusion. Both these preparations are given internally in doses of two or three ounces; and are used topically as gargles, in the cases before-mentioned.—The *Conserva Rosæ*, Ph. Lond. et Ed. is made by beating up the petals with a sufficient quantity of refined sugar; and is employed, in combination with nitre or alum or catechu, and a few drops of tincture of opium, in hæmorrhages from the lungs and uterus. Dose half a drachm or two scruplès. (See Refrigerants, p. 39.) The *Mel Rosæ*, Ph. Lond. (formerly *Mel rosaceum*) is obtained by macerating for six hours in three pints of hot water four ounces of the petals; then straining the liquor and adding to it five pounds of clarified honey, and boiling the whole to the consistence of a syrup. It is added to gargles, and lotions for the mouth, in cases of sore throat and aphthæ.—The *Syrupus Rosæ*, Ph. Lond.

Lond. and *Syrupus Rosarum rubrarum*, Ph. Ed. are chiefly employed for sweetening and colouring juleps and mixtures. Certainly their medicinal powers are insignificant.

SALIX alba. The White Willow. See Tonics.

SALIX fragilis. The fragile Willow. See Tonics.

SALVIA officinalis. Diandria. Monogynia. Verticillatae. Southern parts of Europe. (Folia.) The leaves of this plant possess some degree of astringency, as is proved by their chemical agency on solutions of vitriolated iron. It is said that infusions of them in water or red wine and water, have been given with good effect in hectic perspirations. (*Thesaur. Med.* p. 201) in which cases their efficacy would doubtless be increased by the addition of a due proportion of vitriolated zinc and tincture of opium. The infusion of the leaves, mixed with honey and vinegar, is a well-known gargle, frequently resorted to in cases of sore throat, in this and other countries. Beyond this, what more can, consistently with accurate observation and experience, be asserted concerning the medical virtues of sage? Yet, as *Bergius* has noticed, in the year 1688, one Chr. Fred. Paulini

had the patience to write 414 pages in 8vo. on this vegetable alone!—so much did he outdo the school of Salernum.

¶ SYMPHYTUM *officinale*. Pentandria. Monogynia. Asperifoliæ. Indigenous. (*Consolida major*. Radix et Herba.) Comfrey. Decoctions of the root and herb of this plant, were formerly employed for restraining hæmorrhages from the lungs and other viscera; but in modern practice the preference is given to the catechu, kino, and other articles of this class, which have been previously noticed.

TORMENTILLA *erecta*. Icosandria. Polygynia. Senticosæ. Indigenous. (Radix.) Tormentil. Half an ounce of the root coarsely pounded and boiled in sixteen ounces of water down to twelve, gives a good astringent decoction, suited to the same cases as the decoction of logwood and infusion of catechu, before-mentioned. The pulverized root is an ingredient in the *Pulvis Cretæ compositus*, Ph. Lond. for the doses and uses of which, see the article Creta.

RESINA FLAVA *Novi Belgii*. Botany Bay Gum or Resin. (*Acoroides resinifera*.) This
resinous

resinous substance, which is of a yellow and yellow-red colour, has lately been employed and recommended in alvine fluxes and other disorders requiring the aid of astringent medicines. It may be given in substance, triturated with mucilage of gum arabic, and thereby incorporated with any of the distilled aromatic waters; or the tincture prepared from it may, by the same means, be mixed with common water, and be taken in the form of draughts. Of the resin the dose is from fifteen grains to half a drachm; of the tincture one or two drachms. Has it any advantages over the kino? *Kite* on the *Acoroides resinifera* or Yellow Gum of Botany Bay, in Vol. IV. of the Memoirs of the Med. Society of London; and *Chamberlaine* in the Med. and Phys. Journal for 1801.

(3) *From the Mineral Kingdom.*

ARGILLA *vitriolata*. Alumen. Vitriolated Argill. Alum. Vitriolated argill should, in conformity with its title, consist of vitriolic acid and argillaceous earth only; but that saline product which goes by this name contains a portion of the vegetable alkali (in addition to the argill) in combination with the vitriolic acid: and in some instances other matters are also joined with it.

Fourcroy *Connaissances Chimiques*, Tom. III. sect. 5.) But these contaminations are of little consequence, in regard to its use as a drug. Some sorts of alum contain an impregnation of iron; from which (or any other metallic additament) they may be freed by the purifying process (*Aluminis purificatio*) directed by the College.

Alum holds a principal place among astringent medicines; and is frequently and successfully employed in cases of diarrhœa, diabetes (*Mead*, *Brocklesby*, *Vogel*,) fluor albus, and hæmorrhages from the nose, lungs, and uterus. (*Helvetius*, *Cullen*.) On these occasions it is joined with mucilages, camphor, catechu, extract of cinchona, opium, &c.—It is also added to gargles and lotions for the throat and mouth, in cases of angina and aphthæ. Of its use as an auxiliary to the cinchona in intermittent fevers, and to opium in certain species of colic, notice will be taken under Tonics. Dose from five to fifteen grains; in larger doses it is apt to vomit and purge.—The *Pulvis Aluminis compositus*, Ph. Ed. (vulgo *Pulvis Stypticus*) of which this earthy salt is the basis, has been already noticed under the article kino, where its uses and doses are mentioned. *Serum lactis aluminosum* (Alum Whey) is prepared by boiling a drachm or two of alum in a pint of milk and afterwards straining. (*Thesaur. Med.* p. 198.) Two or three ounces

ounces are given for a dose, in diabetes.—Alum is added to gargles either in its crude state (pulverized) or deprived of its water of crystallization by exposure to heat, in which state it is termed burnt alum. (*Alumen Ustum.*) One drachm of the crude alum or half a drachm of the burnt alum, to a pint of any astringent decoction or infusion, will be found a sufficient proportion. (*Thesaur. Med.* p. 206.)—The *Cataplasma Aluminis*, Ph. Lond. (formerly called *Coagulum aluminosum*; Alum Curd) is made by shaking a piece of alum with the white of egg, until the latter is curdled. It is used in some species of ophthalmia, spread upon rag and applied in bed.—The *Aqua Aluminis composita*, Ph. Lond. (formerly *Aqua aluminosa Bateana*) is made by dissolving half an ounce of alum, and half an ounce of vitriolated zinc, in a quart of boiling water. It is used for collyria, lotions, and injections.—Alum is an ingredient in the *Aqua Cupri vitriolati composita*, Ph. Ed. for which see the article cuprum farther on. *Seydler de Alumine ejusque Usu medico*, 1772. *Lind de Aluminis virtute medica*, 1784.

¶ *BOLUS Gallicus et Armenus.* French and Armenian Bole. See Absorbents.

CALX pura. *Calx viva.* Quicklime. The *Aqua calcis*, Ph. Lond. et Ed. is sometimes useful
in

in the diarrhœa which occurs in hectic disorders (where it is often added to ass's or cow's milk made warm) in diabetes and fluor albus. Its preparation and doses have been already mentioned under Absorbents.

CRETA præparata. Prepared Chalk. Useful in the same cases as the preceding. See Absorbents.

CUPRUM vitriolatum. (Vitriolum cœruleum.) Vitriolated Copper. Blue vitriol. This metallic salt is chiefly employed externally by the surgeons as an escharotic (see Antiseptics) and dissolved in large quantities of water, as a collyrium in purulent ophthalmies. To this last purpose is adapted the *Aqua cupri vitriolati composita*, Ph. Ed. (formerly called *Aqua styptica*) which consists of vitriolated copper and alum, each three ounces, water two pounds, vitriolic acid an ounce and a half. The alum and vitriol are dissolved in the water by boiling, after which the liquor being filtered, the acid is added to it. When used as a collyrium this must be further diluted with water. Pledgets dipped in this solution are put up the nostrils to stop bleedings from the nose.—Some practitioners have ventured to prescribe vitr. copper internally in cases of hæmorrhage, and in alvine fluxes, in doses of an eighth or a quarter of a grain; but for these purposes

purposes the vitriolated zinc is to be preferred, being a safer medicine and producing the same effects when given in larger doses. Concerning the employment of this metallic salt in intermittents, see Tonics.

PLUMBUM *acetatum*. Cerussa *acetata*. (Saccharum Saturni.) Acetated Lead. Acetated Cerusse. Sugar of Lead. This, like all the saline preparations of lead, is powerfully restraining; and has accordingly been prescribed internally by some practitioners, in cases of pulmonary and uterine hæmorrhage, in doses of half a grain to a grain and a half, made into pills with rose-conserve, and joined with opium. (*Thesaur. Med.* p. 190. *Reynolds* in Vol. III. of the *Med. Transact.* of the Lond. Coll. of Physicians.) Many physicians have been deterred from the exhibition of acetated lead in these and other cases by the consideration of the deleterious effects which those persons experience, who are frequently or constantly exposed to the effluvia arising from this metal, in the working of mines, the smelting of ores, and in certain arts, trades, and manufactures; but, as *Dr. Donald Monró* (*Med. and Pharmaceutical Chemistry*, Vol. I. p. 281) has remarked, its occasional exhibition, in the manner above proposed, is very different from its being taken

taken into the body constantly, and for a great length of time. He has seen several instances where it has produced the best effects in the cases above-mentioned, without producing the least inconvenience: he therefore thinks that where other medicines fail, and the patients are in danger of dying from the bleeding, a physician is justified in ordering this metallic preparation. Should any symptoms of colica pictonum occur during its use, it will be proper to desist and to remove them by the proper laxative and demulcent remedies. Where, from peculiar irritability of the stomach and intestinal canal, it produces this effect in the small doses before-stated, even though combined with opium, it should be discontinued, and some other medicine of this class should be prescribed in its place. Acid liquors must be withheld during its use. In our own practice we have generally given the preference to vitriolated zinc, administered in nauseating doses; and thus have had no occasion to counteract those mischievous effects on the bowels which this and other preparations of lead are so liable to produce.—Acetated cerusse is frequently employed in injections against gleet and gonorrhœa. For this purpose half a drachm or two scruples may be dissolved in eight ounces of water. (*Thesaur. Med.* p. 209.) When used as a collyrium, the proportion of the metallic

lic salt in the solution should not exceed two or three grains to every ounce of water. See Refrigerants.

ZINCUM vitriolatum. (Vitriolum album.) Vitriolated zinc. White Vitriol. This is an useful astringent in pulmonary and uterine hæmorrhages, made into pills with rose-conserve, and given in doses of half a grain or a grain, at intervals of two or three hours; until it excites considerable nausea, when it should be suspended till that effect goes off, and repeated again, if the bleeding should continue. On these occasions it may be joined with opium, digitalis, and other auxiliaries. It will rather promote than impede the operation of this medicine to give at the same time cold liquors acidulated with the vitriolic acid. For other observations, on its internal use, see Tonics.—Vitriolated zinc is a common and useful ingredient in eye-waters, in which camphor is sometimes joined with it, as in the instance of the *Aqua zinci vitriolati cum camphora*, Ph. Lond. See Refrigerants.

TABULAR VIEW
OF
THE CONTENTS OF CLASS VII.

TONICS.

(1) <i>From the Vegetable Kingdom.</i>	† <i>Gentiana Centaurium.</i> Lesser Centaury.
† <i>Æsculus Hippocastanum.</i> The Horse Chestnut.	<i>Gentiana lutea.</i> Gentian.
<i>Amomum Zingiber.</i> Ginger.	† <i>Geum urbanum.</i> Herb Bennet.
<i>Angustura.</i> Angustura bark.	† <i>Inula Helenium.</i> Elecampane.
<i>Anthemis nobilis.</i> Chamomile.	<i>Kæmpferia rotunda.</i> Zedoary.
<i>Arnica montana.</i> Leopard's bane.	<i>Lichen islandicus.</i> Iceland Liverwort.
† <i>Artemisia Abrotanum.</i> South-ernwood.	† <i>Marrubium vulgare.</i> Horehound.
<i>Artemisia Absinthium.</i> Common Wormwood.	<i>Menyanthes trifoliata.</i> Buckbean.
<i>Artemisia maritima.</i> Sea Wormwood.	<i>Myrrha.</i> Myrrh.
<i>Brucea antidyserterica.</i> Brucea.	† <i>Panax quinquefolium.</i> Ginseng.
† <i>Centaurea benedicta.</i> Blessed Thistle.	<i>Polygala amara.</i> Bitter Polygala.
† <i>Cichoreum Intybus.</i> Succory or Cichory.	<i>Quassia amara.</i> Bitter Quassia.
<i>Cinchona officinalis.</i> Peruvian Bark.	<i>Quassia Simarouba.</i> Simarouba.
<i>Citrus Aurantium.</i> The Seville Orange.	<i>Quercus Robur.</i> The Oak.
<i>Colomba.</i> Columbo-root.	<i>Salix alba.</i> The White Willow.
<i>Croton Eleutheria.</i> Cascarrilla.	<i>Salix fragilis.</i> The fragile Willow.
	<i>Swietenia febrifuga.</i> Febrifuge Mahogany.
	<i>Tanacetum vulgare.</i> Tansy.
	Vinum

Vinum rubrum Portugallicum. Red Port Wine.	Cuprum vitriolatum. Vitriolated Copper. Blue Vitriol.
Acidum nitricum. The nitric Acid.	Ferrum—ejus limatura et rubigo. Iron—its filings and rust.
(2) From the Mineral Kingdom.	Ferrum ammoniacale. Ammoniacal Iron.
Acidum vitriolicum. Vitriolic Acid.	Ferrum muriatum. Muriated Iron.
Acidum vitriolicum aromaticum. Aromatized vitriolic Acid.	Ferrum vitriolatum. Vitriolated Iron.
Argentum nitratum. Nitrated Silver.	Zincum calcinatum. Calcined zinc. Flowers of zinc.
Argilla vitriolata. Vitriolated Argill. Alum.	Zincum vitriolatum. Vitriolated zinc. White Vitriol.
Arsenicum. Arsenic.	
Cuprum ammoniacum. Ammoniacal Copper.	

CLASS VII.

TONICS.

¶ **ÆSCULUS** *Hippocastanum*. Heptandria.
Monogynia. Trihilatæ. Native of
Asia, but naturalized to Europe. (*Hippocastanum*. Cortex.) The Horse Chestnut. Of late
years the bark of this tree has been much ex-
toll'd by foreign writers as a substitute for the
Peruvian bark in intermittent and other fevers,
and in all cases where tonics are required. Dose
of the dried and pulverized bark half a drachm.
In decoction, an ounce to a pint and a half of
water boiled down to a pint. Of the strained
liquor an ounce and a half or two ounces may be
given at a time.—This bark possesses, it cannot
be denied, considerable astringency, with a bitter
and aromatic quality; in which respects it resem-
bles the cinchona; but in febrifuge virtues we
suspect it to be much inferior to the Peruvian
drug, and not at all preferable to the salix and
some other vegetables of this class which will be
hereafter noticed. Yet in some countries where,
in consequence of a limited commerce, the cin-
chona is either not procurable or exceedingly
scarce,

scarce, practitioners may at times be under the necessity of prescribing this. For a catalogue of writers on this article, see *Murray's Apparatus Medicaminum*, Vol. IV. and *Woodville's Medical Botany*, Vol. II.

AMOMUM *Zingiber*. Ginger. See Stimulants.

ANGUSTURA. (Cortex.) Angustura bark. South America. This is a valuable tonic, preferable in many febrile disorders to the Peruvian bark. It is particularly suited to cases of diarrhoea, and those bilious conditions of the intestinal canal (after due evacuations) which commonly prevail in this country, in the summer and autumnal seasons. Dose of the powder fifteen or twenty grains. It is also given in infusion. If we were to enumerate more particulars on this subject, we should only repeat the observations formerly made at p. 223 and 224, of the *Thesaur. Med.* Brande on the Angustura bark, 1791. *Murray* Appar. Med. Vol. VI. *Lettsem* in Vol. IV. of *Memoirs of the Medical Society*, and *Winterbottom* in Vol. VII. of *Medical Facts and Observations*.

ANTHEMIS *nobilis*. (See Vol. I. p. 173, and p. 50, of the present Volume.) Chamomile. The dried flowers of this herb are justly held in high esteem as a bitter and strengthening medicine;
Vol. II. H cine;

cine; and are successfully employed not only in cases of chronic debility and bilious conditions of the stomach and intestinal canal; but likewise in certain febrile affections, particularly agues. These last have sometimes yielded to this bitter, after having resisted the action of the Peruvian bark in all forms and doses. (*Morton, Hoffman, Mead, Baker, Heberden,*) In these cases the chamomile (whether administered in substance or in infusion) is combined with myrrh, ginger, and other aromatics. (*Thesaur. Med.* p. 228—234.) It has also been found useful to join with it an alkaline salt, such as prepared kali or natron. The *Extractum Chamæmeli*, Ph. Lond. et Ed. is prescribed in debilities of the stomach, in chlorosis, &c. in doses of ten or fifteen grains, joined with myrrh and preparations of iron. *Baldinger vires Chamomillæ*, 1775. *Groote virtus Chamæmeli antipyretica nuperis aliquot experimentis illustrata*, 1783.

ARNICA *montana*. Leopard's-bane. See Stimulants.

¶ ARTEMISIA *Abrotanum*. (See p. 52 of this Volume.) Southernwood. Infusions of this herb have sometimes been prescribed in cases where bitters have been required; but as it possesses no advantages over the following species of artemisia, it may well be dispensed with.

Artemisia

Artemisia Absinthium. (Ibid. p. 52.) Common Wormwood.

¶ *ARTEMISIA maritima.* (Ibid. p. 52.) Sea Wormwood. These two last species have been frequently prescribed in infusions, in cachectic, hydropic, and worm-cases; but, as we have before remarked, there can be no occasion for retaining on the list of the materia medica, more than one species of this genus; which should perhaps be the *artemisia absinthium*.—In the Ph. Lond. there is a *Conserva Absinthii maritimi* which is used by some as a stomachic and antiscorbutic. Dose one or two drachms. *Febr de Absinthio analecta*, 1668.

BRUCEA antidysenterica. Diœcia. Tetrandria. Frutex. Abyssinia. (Cortex. Radix.) Brucea. The bark and root of this shrub possess considerable bitterness, and are employed with great success by the Abyssinians in alvine fluxes. Of the pulverized bark or root fifteen grains may be given for a dose. In decoction or infusion three drachms or half an ounce may be employed to a pint of water. It were to be wished that this drug could be imported into this country from Abyssinia, through Egypt.—Might it not also be procured in another direction through our commerce to the Red Sea, and be introduced into

our East-India Settlements with very great advantage? See Vol. V. of *Bruce's Travels* to discover the Source of the Nile, 1790.

¶ *CENTAUREA benedicta*. (See Vol. I. p. 174.) Blessed Thistle. As a bitter and stomachic not at all preferable to chamomile, buckbean, or quassia; and may therefore be rejected. Yet it has been dignified with the pompous titles of *asylum languentium, medicina patrumfamilias polychresta, verusque pauperum thesaurus!*

¶ *CICHOREUM Intybus*. Syngenesia. Polygamia. Æqualis. Compositæ. Semiflosculosæ. Indigenous. (*Cichoreum. Folia et Radix.*) Succory or Cichory. This is another bitter vegetable, which, though highly prized in other countries, is thought little of in this. It has no place in our Pharmacopœias, and certainly there is no occasion for it. On the Continent, the expressed juice of the leaves and decoctions of the roots, are employed in cachectic, hydropic, and icterical cases. Foreigners are also fond of prescribing an extract and syrup prepared from this plant.

CINCHONA officinalis. (See p. 53 of this Volume.) Peruvian Bark. Of all the medicines of this class, the cinchona is that which is most extensively used; and certainly it is preferable to
 4 most

most of the other articles for the purposes of counteracting febrile affection, and of restoring tone and vigour in the multiform cases of general and particular weaknesses which are daily met with. Hence its employment in intermittent and remittent fevers; in the early stages of the jail and petechial fevers; in the advanced and sinking stages of all continued fevers; in malignant small pox; malignant angina and the plague; (see Antiseptics)-in all convalescencies; in certain convulsive affections connected with too great sensibility and irritability of the nervous system; such as hysteria, chorea, epilepsy, whooping-cough; (*Murray de tempore Cort. Per. in Tussi Convulsivâ exhibendi*, 1776, and reprinted in his *Opuscula*, Vol. I.) in certain disorders depending upon an impaired condition of the organs of digestion and secretion, and accompanied with a languid or feeble action of the sanguiferous system; such as chlorosis, diarrhœa, fluor albus, gleet; in diminished actions of the absorbents and lymphatic glands, such as dropsy, venous hæmorrhage; scrophula; in cachectic, phthifical and scorbutic affections; in all cases of foul and chronic ulcers; in malignant erysipelas; and in gangrene. (See Antiseptics.)

Having noticed the principal circumstances to be attended to in the administration of this drug

in Intermittent Fevers at pages 215, 216, 217, of the *Thesaur. Med.* it will be unnecessary for us to discuss that topic here. We shall only remark that, in this climate, the Peruvian bark will not always answer for the cure of agues, and that where it disagrees, chamomile and other bitters, joined with myrrh and aromatics (see p. 98 of this volume) may be advantageously used in its stead. But it more frequently disagrees in Remittent Fevers; because they are generally accompanied with a bilious or slimy condition of the intestinal canal, and on that account require the repeated employment of antimonial, mercurial, and other evacuating medicines. Hence the lighter tonics, such as the angustura and colombo, succeed better in the majority of such cases.

In regard to its exhibition in Continued Fevers, much mischief is often occasioned by prescribing it too soon. *Morton* erred in this particular; and the remark which is contained in the posthumous work of a late classical and philosophical physician (*Heberden Commentarii de Morborum Historia et Curatione*, p. 155) will, we are of opinion, be of disservice rather than of use to the practitioners of physic, as it is not accompanied with any restriction as to time (whether the fever be at the onset, the acme, or the decline) and other qualifying circumstances. We have been witness, in several instances,

instances, to a very great aggravation of symptoms, in consequence of a free exhibition of the cinchona in the early period of fevers of a continued type;—of its exhibition at a time when the circulating system has been in a state of too much action, when the skin has been parched, the tongue foul and dry, and the urine high-coloured and without sediment. Under such circumstances of Continued Fever, we have known the Peruvian bark, in a much less dose than that mentioned by Dr. *Heberden*, to produce a very injurious effect. In fact, it should always be kept back in these fevers (except where the marks of a septic condition appear at the beginning) until the inordinate arterial movements and increased heat shall have been considerably abated, and the stomach and intestinal canal duly freed from their impurities. This is a business of some days; and when we have proceeded so far, camphorated and opiate medicines will often answer better, even at this period, than the Peruvian drug: But afterwards, when the febrile action is nearly spent, when the skin is observed to be soft, the tongue moist, and in part cleared of its morbid covering; then the cinchona may be thrown in with the best effect.

These observations relative to the precipitate employment of the Peruvian bark in Continued

Fevers, are meant to apply to such of those fevers as are not early accompanied with marks of great malignancy ; such as extreme debility and fluttering of the pulse, proclivity to fainting, coldness of the extremities, hæmorrhages, petechial eruptions or gangrenous ulceration of the throat : For, in all such cases of continued fever, the cinchona should be largely administered, joined with the mineral acids (see Antiseptics) in every period of the disease. In like manner, it will often be necessary to employ it early in certain eruptive fevers of a continued type, such as the malignant erysipelas, malignant small pox, malignant scarlatina and the plague. In these cases not only acids, but Port Wine also, are given in conjunction with the bark. (See Antiseptics.)

In Intermittent Fevers the cinchona is best administered in substance, alone, or joined with aromatics, with ammoniacal salts, with aloetics, with rhubarb, &c. (*Thesaur. Med.* p. 171, 172—219—221.) Moreover in these cases it is sometimes joined with astringents, (*Ibid.* p. 191—222) and sometimes with opium.—The Decoction alone is not powerful enough for the cure of intermittents. When given therefore in this form it is necessary to add to each dose of the decoction not only some of the tincture but a quantity of the extract or powder also.—To children labouring

labouring under agues, the extract is less nauseating than the powder, and may be given mixed up with sugar and milk and water. (*Heberden Commentarii de Morb. Hist.* p. 160.) In Continued Fevers it is given in decoction, joined with camphor, with serpentaria, with acids, with opiates, (*Ibid.* p. 173) and accompanied with the use of Wine; for where the bark agrees in these fevers, wine and especially claret or port wine, agree also, and greatly promote its operation, (p. 176—239.)—In cases of chronic debility, it is combined with some of the warmer stomachics, such as ginger and cascarilla, (*Ibid.* p. 221—235) or with bitters and chalybeates. (*Ibid.* p. 233—236.)—In certain convulsive affections, such as chorea and epilepsy, magnesia, prepared kali, or prepared natron, together with camphor or opium, are advantageously mixed with it; and in cases of hysteria, the water or spirit of ammonia, valerian, &c. In dropical cases it is joined with squills, digitalis, and other diuretics.—Where the bark cannot be administered by the mouth it may be thrown into the intestinal canal, joined with opium, clysterwise. (*Thesaur. Med.* p. 258.) It is said, too, that, in the instance of children who have refused to take this drug by the mouth, the powder moistened with the decoction and made into a cataplasm, has been applied to the region of the stomach with evident good effect, in inter-

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mittent fevers; but putting the feet of children in these cases in a bath made of the decoction does no good. (*Heberden Commentarii de Morb. Hist. et Curatione*, p. 160.) Better success may be expected from rubbing, after the manner lately recommended by *Brera* and other Italian physicians, the extract of the bark (previously rendered sufficiently moist by trituration with gastric juice, saliva or oil) upon the thighs or other parts of the body. In this mode of application a considerable absorption takes place, and a very powerful effect is often produced upon the system. (*Duncan's Annals*, and *Marabelli Apparatus Medicam.* 1801.)—Dose of the bark in powder from half a drachm to two drachms, mixed in any proper vehicle, or made into an electuary.—The *Decoctum Cinchonæ*, Ph. Lond. (*Decoctum Corticis Peruviani*) is made by boiling for ten minutes, in a covered vessel, one ounce of the pulverized bark in one pint and three ounces of water. Dose from one to three ounces; generally joined with a small quantity of the tincture, and sometimes strengthened by the addition of the powder or extract also. The *Decoctum Corticis Peruviani sive Cinchonæ*, Ph. Ed. is made by boiling for the same length of time one ounce of the bark in a pound and a half of water; consequently it is not quite so strong as the London decoction. Dose from one to four ounces.—In both

both cases the decoction is to be strained while hot; as it is liable to throw down a sediment in cooling, and consequently to lose something of its strength.—If an Infusion is preferred, it may be made by triturating for half an hour the fine powder, alone, or with a fifth or sixth part of calcined magnesia, with rather more than half a pint of cold water; the water being added gradually.—After all the water has been added, the whole should be well shaken together, and then strained. Of such an Infusion from two to three ounces may be given for a dose, with or without spirituous and aromatic additions.—In the Lond. Ph. there are two extracts prepared from this drug, viz. the *Extractum Cinchonæ*, which might have been termed *Extractum cinchonæ per aquam*, and which is obtained by evaporating the water in which the bark has been boiled to the state of either a soft (*extractum molle*) or hard extract (*extractum durum*); the former being intended for pills, the latter for any other purposes. Dose from ten grains to a scruple; made into pills, or mixed up with aromatic liquors, or with the decoction.—It is a preparation of little efficacy, all the aromatic properties of the bark being dissipated in the long-continued boiling: And the *Extractum Cinchonæ cum resina*, which might have been termed *Extractum Cinchonæ per spiritum vinosum*, and which is prepared by
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digesting the bark first in rectified spirit of wine, then pouring off the tincture, and boiling the residuum in water. The tincture and decoction are strained separately; the one is distilled and the other evaporated; after which the two residuums (*viz.* the resin and the extract) are mixed together and evaporated to a consistence fit for being made into pills. The *Extractum Corticis Peruviani*, Ph. Ed. is made in the same way. Dose of either from five to fifteen grains.—This spirituous extract is certainly preferable to the aqueous extract; but neither the one nor the other can be relied upon in intermittents and other disorders, which require for their removal the utmost effect of the bark.—In the instance of children, whom it is sometimes impossible to compel to swallow the bark, these extracts may be conveyed into the body by friction, after the Italian method before-mentioned. The *Tinctura Cinchonæ sive Corticis Peruviani*, Ph. Lond. is made by digesting for eight days six ounces of the bark in two pints of proof spirit. Dose two or three drachms. The ¶ *Tinctura Cinchonæ Ammoniata*, Ph. Lond. is made by digesting for ten days four ounces of the bark in two pints of compound spirit of ammonia. Dose, from thirty to sixty drops. It is a bad preparation, it being impossible to give an active dose of the bark in this manner. The ammoniacal menstruum previously
impregnated

impregnated with essential oils, extracts but little even of the aromatic properties of the bark. If a combination of the volatile alkali with the Peruvian drug be desired, it should be made by adding a proper proportion of the ammonia to the decoction, or to the common spirituous tincture of cinchona.—Infinitely preferable to the preceding ammoniated preparation, is the *Tinctura Cinchonæ composita*, Ph. Lond. which is made by digesting for a fortnight two ounces of the bark, one ounce and a half of the dried rind of Seville oranges, three drachms of Virginian snake-root, one drachm of saffron, and two scruples of cochineal, in twenty ounces of proof spirit. Dose one, two, or three drachms. This is *Huxham's* celebrated tincture of Peruvian bark. (See his Essay on Fevers, p. 122.) This “I have used (says he) for many years with success, not only in intermitting and slow nervous fevers; but also in the putrid, pestilential, and petechial, especially in the decline: and that too many times, though the remissions have been very obscure, and yet with a very good effect. But if the patient is costive, or hath a tense and tumid abdomen, I always premise a dose of rhubarb, manna, or the like.”—He gave it in any appropriate draught, or diluted wine, with ten, fifteen, or twenty drops of elixir of vitriol.—The colouring materials, the saffron and cochineal, seem to be superfluous ingredients
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in this tincture.—In the Ed. Ph. there is but one *Tinctura Corticis Peruviani*, which is made by digesting for ten days four ounces of the bark in two pounds and a half of proof spirit. Dose one, two, or three drachms.

What we have said above concerning the uses, preparations, and doses of the cinchona officinalis, or common Peruvian bark, will apply to most of the other species and varieties of this genus; such as the red-bark (*cinchona rubra*) the Jamaica or Caribbean bark (*cinchona Caribbaea*. Wright in Phil. Transf. Vol. LXVII.) the St. Lucia bark (*cinchona floribunda*) the yellow-bark (*cinchona lutea* feu *flava*) &c. All these, though they vary in their degree of activity, coincide in their general effects, and may therefore be indifferently used, one for another. In this country, however, the *red* and *yellow* seem to be generally preferred. (*Ruiz* on the different species of cinchona (in the German) 1794. *Lambert's* Description of the Genus Cinchona, 4to. 1797.)

The high price of this drug, and the difficulty of procuring it in some countries, have given occasion to the succedaneous employment of other barks and vegetable substances (in which the bitter and astringent principles are united) in its stead; such as the *æsculus hippocastanum*, the *quercus*
robur;

rebur, the *geum urbanum*, the *salix alba*, the *swietenia febrifuga*, &c. for observations on all which, the reader is referred to those articles severally.—Much valuable information, relative to the use of the Peruvian Bark in Intermittent, Remittent, and Continued Fevers, may be derived from the writings of *Sydenham*, *Morton*, *Torti*, *Huxham*, *Werlhof*, *Clegborn*, *Cullen*, *Pringle*, *Monro*, *Baker*, *Heberden*, *Lind*, *Clarke*, *Fordyce*, *Blane*. Among the separate treatises on this drug the following may be referred to as the most esteemed: *de Berger de Chinchina ab iniquis judiciis vindicata*, 1711, and reprinted in Vol. V. of *Haller's Dissertationes Medico-Practicæ*. *Hoffman de recto Corticis Chinæ usu in febribus*, 1728, and reprinted in Vol. VI. of his works. *Buchwald's methodus curandi febres intermittentes per Cort. Cinchonæ*, 1751. *Linnaeus de Cortice Peruviano*, 1758, and reprinted in Vol. IX. of the *Amœnitates Academicæ*. *Triller de Cort. Per. usu*, 1758, and reprinted in Vol. I. of his *Opuscula*. *Buckner de usu Cort. Per. cum Camphora remixti in febribus ex putredine ortis*, 1762. *Pulteney de Cinchona Officinali* Edinb. 1764, and reprinted in Vol. III. of *Smellie's Thesaur.* *Baldinger de Cort. Per. connubiis, et eum exhibendi modis*, 1769.—*Saunders* on the superior efficacy of the Red Peruvian Bark in the cure of Fevers, 1782. *Skeete* on the Quilled and Red Peruvian Bark, 1786.

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Relpb on the Yellow Bark, 1794. *O'Ryan* on ditto, 1794. *Vaughan* on ditto, 1795. *Marabelli* de *China lutea*, 1796, and in his *Apparat. Med.* 1801.

CITRUS Aurantium. (See p. 44 of this Volume.)
Aurantium hispalense. The Seville Orange. The outer rind of this fruit (*cortex exterior vel flavedo corticis*) abounds with a warm essential oil, which in conjunction with the bitter principle, also present in the rind, has an excellent stomachic effect; and is accordingly prescribed with great advantage in cases of indigestion, flatulency, gouty conditions, and convalescencies. It is an useful addition to the Peruvian bark in intermittents, and in many forms of chronic debility in which that drug is employed. In gouty affections of the stomach it is joined with *magnesia* and other absorbents. Of the dried rind, from fifteen grains to two scruples may be given for a dose. In infusion, two or three drachms may be used to half a pint of boiling water.—There is a *Conserva Aurantii* and a *Syrupus Aurantii* in both Pharmacopœias, made in the usual way. The first, *viz.* the conserve is given in doses of two or three drachms; the last is employed for flavouring draughts and juleps. The *Tinctura Aurantii Corticis*, Ph. Lond. is an elegant and useful preparation. It is made by digesting for three days three ounces of the fresh rind in two pints of proof spirit

spirit. Dose one or two drachms. Added to draughts of the camphorated mixture, or some of the distilled aromatic waters, and joined with absorbents, and opiates, or sometimes with aloetics and chalybeates, this tincture is of eminent service in those debilities of the stomach, and alimentary canal, which originate from hard drinking. Of the leaves notice will be taken under Antispasmodics.—What is here said of the Seville orange will apply to the small unripe Curaçao oranges.

CROTON *Cascarilla*. [Clusia Eleutheria.]

In the Tabular View of the Contents of this Class, the Cascarilla stands as a species of Croton; but from more recent and accurate botanical observations (See *Woodville's Medical Botany* Vol. IV. p. 2) it appears that it is the bark of the

CLUSIA *Eluteria*. Diœcia. Gynandria. Tricoccæ. East and West-Indies. Arbor. (Cascarilla. Cortex.) Seaside Clusia. Cascarilla. This bark is a valuable aromatic bitter. Like the angustura bark it is prescribed very successfully in alvine fluxes (but in smaller doses, being more stimulant) and may be given in most cases where strengthening medicines are required. It is an useful adjunct to the cinchona in intermittent

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and other fevers, and in convalescencies; as it corrects the laxative effect which the Peruvian drug often has upon the bowels, and by its aromatic properties increases its tonic powers. It is also advantageously joined with chamomile and other bitters. Dose of the pulverized bark from ten to thirty grains.—The *Extractum Cascarillæ*, Ph. Lond. is prepared in the same manner as the resinous extract of Peruvian bark. Dose from ten to fifteen grains. The *Tinctura Cascarillæ*, Ph. Lond. is made by digesting for eight days four ounces of the bark in two pints of proof spirit. Dose one or two drachms. It is an elegant and active preparation.

COLOMBA. (Radix.) Columbo-root. The plant from which this excellent bitter drug is obtained has not yet been described by botanists. It is brought to Europe from Ceylon. This bitter mucilaginous root is frequently and successfully employed in debilities of the stomach and intestinal canal; in cholera; in bilious diarrhœas; and in bilious remittent fevers; in which last it agrees where the Peruvian bark will not. (Pearson on Bilious Fevers, 1799.) It is likewise serviceable in the nausea and vomiting which occur in pregnancy. In the last mentioned cases it is joined with orange-peel, with ginger, with pepper-mint or other aromatics; in cholera with aromatics
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and opiates; in bilious diarrhœas and bilious fevers with neutral or alkaline salts. Dose of the pulverized root from fifteen grains to half a drachm. In infusion, two drachms to a pint of hot water. The *Tinctura Colombæ*, Ph. Lond. is made by digesting for eight days two ounces and a half of the root in two pints of proof spirit. The *Tinctura Colombæ*, Ph. Ed. is made by digesting for the same space of time two ounces of the root in two pounds of the spirit. Dose of either one or two drachms. *Percival* on the Colombo root in Vol. II. of his Medical and Experimental Essays; and *Josse* in Vol. III. of the Histoire de la Société de Med. de Paris.

¶ *GENTIANA Centaurium*. [*Chironia Centaurium* of some botanists.] Pentandria. Digynia. Rotaceæ. Indigenous. (*Centaureum minus*. *Cacumina* seu *summitates florentes*.) Lesser Centaury. The flowering tops and other parts of this plant possess a remarkable degree of bitterness, and hence have been employed in all cases in which it is customary to use stomachic medicines. We conceive, however, that it is not at all preferable to wormwood, tansy, and other bitter vegetables of this class; and we therefore think it should be erased from the over-crowded list of the materia medica. Dose of the dried and pulverized tops, from fifteen grains to two

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scruples.

scruples. In infusion two or three drachms to half a pint of hot water.

This and the following species of gentiana are ingredients in the Portland powder; once in the highest repute as a remedy against the gout, but latterly fallen into discredit in consequence of the censures passed upon it by *Werlkof*, *Cullen*, *Darwin*, and others. Doubtless the long-continued use of all bitters is prejudicial to the living body, and of some the deleterious operation is very conspicuous. Hence the paralytic, apoplectic, and hydroptic affections, which have supervened in the instance of gouty persons who have taken the Portland remedy for a great length of time, have, we think, with good reason been chiefly ascribed to this and the other bitter herbs of which it is composed. Dr. *Heberden*, however, in his elegant work (entitled *Commentarii de Morb. Hist. et Curatione*, p. 49) is of opinion that the aforesaid fatal disorders, with which gouty persons have been seized while under a course of this remedy, are not imputable to it, but to the disease itself; whose natural tendency in constitutions advanced in years, and that have long endured its attacks, is to terminate in such manner. He believes it to have had the effect, in many instances, of mitigating the fits when present, and of rendering their returns less frequent. The only objections
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he fees against the Portland powder are, that it is too compound [the ingredients are the roots of birth-wort (*aristolochia*) and gentian, the tops and leaves of germander (*chamædrys*) ground-pine (*chamæpitys*) and lesser centaury—equal quantities by weight of each] and that it has generally been given in doses so large as to disagree with the stomach, and thus from its bulk and bad taste to have been loathed by the patients. Instead, therefore, of rejecting it altogether, he recommends the correcting of these inconveniencies, by reducing the number of ingredients, and more carefully apportioning the dose. Convinced, however, as we are, that injurious effects are produced upon the system by the habitual use of all bitters, we would not advise the Portland powder to be resorted to as an antipodagric, even under the improvements in regard to composition and administration, proposed by Dr. *Heberden*. Rather would we recommend in such cases the frequent or continued employment of *canella alba*, ginger, (see *Amomum* under Stimulants) and other aromatics; *occasionally* interposing tanfy, zedoary, serpentaria, and other bitters; for very different is the having recourse to the last-mentioned remedies *at times*, (such as on the approach of gouty symptoms, and for a few days after a paroxysm) from the *constant* exhibition of them. *Wedel de Centaurio minori*, 1713.

GENTIANA lutea. Class and order as above. The Alps, Apennines and Pyrenees. (Radix.) Yellow Gentian. The root of this beautiful plant is a valuable bitter, very successfully and very generally employed as a stomachic and strengthening medicine. It is particularly useful in various chronic affections connected with debility, such as dyspepsia, diarrhœa, hysteria, chlorosis, dropsy. It has also been given with good effect in intermittent and remittent fevers, joined with the Peruvian bark; and in convalescencies from all fevers. In these and other cases it is combined with aromatics and chalybeates; sometimes with acids; at other times with alkaline salts, especially in dyspeptic and chlorotic affections, as also in certain disorders of the bowels; with absorbents and aromatics in cases of gout—but with the precautions mentioned on the subject of the Portland powder, under the preceding species. In dropsies it is combined with the squill, neutral salts and other diuretics.—The *Infusum Gentianæ compositum*, Ph. Lond. (formerly *Infusum Amarum simplex*) is made by macerating for one hour in twelve ounces of boiling water one drachm of gentian-root, a drachm and a half of the dried outer rind of the Seville orange, and half an ounce of the fresh outer rind of the lemon. Dose from half an ounce to an ounce and a half. A larger quantity is apt to excite nausea. In our
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own practice we have always found it to answer better when administered in combination with some of the aromatic distilled waters, and in doses not exceeding an ounce, than when given alone. The camphor mixture is an useful addition to it in many cases. The *Infusum Amarum*, Ph. Ed. is made by first steeping half an ounce of gentian root, one drachm of dried Seville orange-peel, and half a drachm of coriander seeds in four ounces of proof spirit, for three hours; afterwards adding a pound of water and macerating without heat for the space of a night. In consequence of the previous addition of the spirit of wine, and the greater length of time given for the maceration, this infusion is stronger and more aromatic than that of the London college. Dose from half an ounce to one ounce.—The *Tinctura Gentianæ composita*, Ph. Lond. (formerly called *Tinctura amara*) is made by digesting for eight days two ounces of gentian root, one ounce of the dried outer rind of Seville oranges, and half an ounce of the lesser cardamom seeds in two pints of proof spirit. Dose from one to three drachms.—The *Tinctura amara*, Ph. Ed. (vulgo Elixir Stomachicum) is made by macerating for the space of four days two ounces of gentian root, one ounce of dried Seville orange-peel, half an ounce of canella alba, and half a drachm of cochineal in two pounds and a half of proof spirit. Dose

the same as of the preceding tincture.—The *Vinum amarum* sive *Gentianæ compositum*, Ph. Ed. is a combination of the Peruvian bark with this drug, and might, perhaps, more aptly have been termed *Vinum cinchonæ cum gentiana*. But when this combination is desired, we conceive it to be much better to add extemporaneously to the decoction of the Peruvian bark a proper quantity of the common tincture of gentian, or to the common infusion of gentian a proper quantity of the tincture of Peruvian bark.—This *Vinum amarum* sive *Gentianæ compositum* above-mentioned, and which we consider as a superfluous preparation, consists of gentian root half an ounce, Peruvian bark one ounce, dried Seville orange-peel two drachms, canella alba one drachm. These ingredients are first steeped in four ounces of proof spirit for twenty-four hours; after which two pounds and a half of Spanish white wine are added, and the maceration is continued for three days. Dose from two drachms to half an ounce.—The *Extractum Gentianæ* of both Pharmacopœias is made by evaporating the saturated and strained decoction of the root to a consistence fit for being made into pills; under which form it is frequently prescribed in all those cases in which the Infusion and Tincture are employed. Dose of this extract from ten grains to half a drachm. It is seldom given alone, but generally
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in combination with aromatic and aloetic powders, with myrrh, vitriolated iron, &c. *Hartman Historia Gentianæ naturalis et medica*, 1777.

¶ *GEUM urbanum*. Icosandria. Polygynia. Senticosæ. Indigenous. (Caryophyllata. Radix.) Herb Bennet. This bitter astringent root has, of late years, been employed in the northern parts of Europe as a substitute for the Peruvian bark, in the cure of intermittents, diarrhœas, &c. That it possesses some medicinal agency in these cases, is unquestionably true; but that it is equally efficacious, or nearly so, with the Peruvian drug for these and other purposes, we can by no means admit. It is even inferior in febrifuge virtues to some species of willow. Indeed, in this country which is so well supplied, through its extensive commerce, with the cinchona, angustura, cascarilla, and other more powerful foreign tonics, it is not likely that this species of geum or the geum *rivale* (for both have been recommended) will be held in much estimation. Dose in substance from half a drachm to a drachm. In decoction, an ounce to a pint of water. *Buckhave Observationes circa radicem Gei urbani*, 1781.

¶ *INULA Helenium*. Syngenesia. Polygamia superflua. Compositæ discoideæ. Indigenous. (Enula campana. Helenium. Radix.) Elecampane.

pane. The root of this plant is among the least efficacious of bitters and aromatics; and should be erased from the list of modern Pharmacopœias.

KÆMPHERIA rotunda. Monandria. Monogynia. Scitamineæ. East-Indies. (Zedoaria. Radix.) Zedoary. This root is a good stomachic frequently prescribed in cases of flatulency, gout, diarrhœa, &c. Dose in substance from fifteen grains to half a drachm. In infusion, half an ounce to a pint of water, previously macerating the powder in a small quantity of proof spirit. It is an ingredient in the *Confectio aromatica*, Ph. Lond.

LICHEN Islandicus. (See p. 13 of this Volume.) Iceland Liverwort. An experience of several years has satisfied us that the character given of this bitter mucilaginous vegetable at p. 251 of the *Thesaur. Med.* is not over-rated. We therefore refer to that work for an account of its medicinal properties. Dose of the pulverized herb from one to two scruples. The decoction is an useful preparation; but when made of a tolerable strength it becomes somewhat gelatinous. (One drachm to eight ounces of water will not make it too thick.) Hence the pulverized herb is prescribed by some, or is added to each dose of the decoction

tion at the time of taking it. If in this way of administering it, the bowels should be rendered lax the addition of a few drops of tincture of opium will be proper. The Decoction may be mixed with equal proportions of the decoction of Peruvian bark, or with the unacidulated infusion of roses, according to circumstances. The *Lichen pyxidatus*, and other species of this genus, coincide in medicinal powers with the above. *Cramer de Lichene Islandico*, 1780. *Memoires sur l'utilité des Lichens dans la medecine, &c. par Messrs. Hoffman, Amoreux, et Willemet*, 1788. *Murray Appar. Med. Vol. V.*

¶ *MARRUBIUM vulgare*. Didynamia. Gymnospermia. Verticillatæ. Indigenous. (*Marrubium album*. Herba.) White Horehound. This is a nauseous bitter, in no respect preferable to chamomile, wormwood, buckbean, or gentian; and may therefore well be expunged from the long list of tonic medicines.

MENYANTHES trifoliata. Pentandria. Monogynia. Preciæ. Indigenous. (*Trifolium paludosum*. *Trifolium fibrinum*. Herba.) Buckbean or Marsh Trefoil. This is a good bitter. The dried herb may be employed in infusion in the same cases as chamomile, wormwood, and gentian. It is thought to be particularly useful in
certain

certain cutaneous diseases, in arthritic affections, and in remittent fevers. (*Thesaur. Med.* 242, 243.) The proportions for making the infusion should be half an ounce of the dried herb to a pint of water.

MYRRHA. (See Vol. I. p. 147.) Myrrh. This gum resin is employed as a tonic with great advantage in most cases of debility, and especially in such as are accompanied with visceral affection, such as amenorrhœa, pulmonary consumption, &c. Joined with bitters and alkaline salts it has often removed remittent and intermittent fevers, after the Peruvian bark has failed. (See p. 98 of this Volume.) Moreover, it is useful in all convalescencies, combined with the cinchona and chalybeates. In cases of hysteria, chlorosis, and amenorrhœa, aloes, galbanum, vitriolated iron, &c. are added to it; and in pulmonary and hectic cases, it is joined with solutions of kali, neutralized with the vegetable acid; or with un-neutralized solutions of the alkaline salt. In the last-mentioned disorders, a mixture of myrrh, prepared kali, and vitriolated iron, has long been in use; but in our own practice we have found a solution of the gum resin in pure water, with the addition of a due proportion of vitriolated zinc and tincture of opium or tincture of digitalis, to have a much better effect, and to be less disagreeable

able to the palate. Besides, the chalybeated myrrh mixture gradually undergoes a chemical decomposition, which renders its strength and operation uncertain. (*Thesaur. Med.* p. 239, 240.) The various preparations of myrrh, with their doses, have been already noticed in Vol. I. at pages 150—287—288—290 and 294, to which the reader is accordingly referred. In common cases of debility, this gum resin is given in doses from fifteen grains to a scruple; but where the chief reliance is placed upon it in intermittents it is prescribed in larger quantities, *viz.* two scruples or a drachm, at a time. *Cartheuser de eximia Myrrhæ virtute medica*, 1746.

¶ *PANAX quinquefolium*. [*Panax quinquefolia*.] Polygamia. Diœcia. Chinese Tartary, and North America. (Ginseng. Radix.) Ginseng. A feeble stomachic undeservedly prized by the Chinese and deservedly slighted by Europæan physicians. It is a superfluous article of the *materia medica*.

POLYGALA amara. Diadelphica. Oestandria. Lomentaceæ. Mountainous parts of France, Piedmont, Switzerland, &c. (*Herba et Radix*.) Bitter Polygala. Bitter Milkwort. This stomachic vegetable, though suited to general cases of debility, has been chiefly prescribed in consumptive disorders.

disorders. Dose of the pulverized herb or root from a scruple to a drachm. In decoction, an ounce of the fresh herb, or roots, to a pint and a half of water, boiled down to a pint. Two ounces of this decoction may be taken at a time. An infusion of the dried herb is a better preparation. It may be given alone or mixed with an equal quantity of the decoction of Peruvian bark.

QUASSIA amara. Decandria. Monogynia. Gruinales. Surinam. (Lignum. Cortex. Radix.) Bitter Quassiy. This holds a principal place among the simple bitters; and is prescribed with good effect in various disorders of the stomach and intestinal canal, whether with or without fever, as well as in hysteria, periodic headach, and nervous irritability. It is particularly useful in the bilious complaints of the hot climates. (*Theaur. Med.* p. 244, 245.) It is best administered in infusion; in the proportion of two drachms of the grated wood, bark, or root, to a pint of hot water. One ounce of such an infusion may be given for a dose alone or combined in some cases with alkaline salts (*Gibson on the Effects of Quassiy and Natron in Bilious Diseases*, 1799) in other cases with vitriolated zinc. (*Lettson in Memoirs of the Med. Society*, Vol. I.) In hysterical affections it may be joined with camphor or valerian; in gouty cases with absorbents and aromatics, particularly ginger.

ginger. In intermittents, it is combined with the Peruvian bark, and other astringents. For rendering it less unpalatable liquorice and spirit of cinnamon answer best.—Of late years this drug has been very generally employed in this country in public and private brewing, as a substitute for hops to the great prejudice of the people's health. For although as a simple bitter, quassy is preferable to the hop for most medicinal purposes, yet for æconomical uses, and particularly for brewing, the hop is greatly superior to the Surinam wood. Mere bitterness is not the only quality which is wanted in brewing, nor the only one which the hop possesses; it is also astringent and aromatic, to a considerable degree—properties which greatly increase its antizymic powers, and which are altogether wanting in the quassy. Hence malt liquor bittered with this last vegetable is not only less depurated, less clear; but is at the same time apt to run into the acetous fermentation, and to lose all its mild and nourishing qualities. It spoils in half the time that hopped malt liquor does. This circumstance has contributed in no small degree to those bowel complaints which have prevailed so much during the last three or four years. *Linnaeus* de Ligno Quassiae, 1763, and reprinted in Vol. VI. of the *Amœnitates Academicæ*. *Severi* Commentarius in quo medicatae Quassiae vires expenduntur, 1776.

QUASSIA.

QUASSIA Simarouba. Class and order as above. Cayenne, Guiana, &c. Arbor. (Simarouba. Simaruba. Cortex.) Simarouba. The bark of this tree, which is bitter without being astringent, has been successfully employed in diarrhœas, and the advanced stage of dysentery. (*Jussieu, Degner, Pringle, Zimmerman, Monro, Wright.*) It is best given in the form of a decoction, in the proportion of two or three drachms to a pint of water. Some prefer a weaker decoction. (*Thesaur. Med.* p. 246.) Large doses excite vomiting. In some cases, opium; in others cascarilla is advantageously joined with it. *Jussieu* in the Memoirs of the French Academy, 1727, and in a Latin dissertation with the title, *An in fluxibus alvi inveteratis Simarouba?* 1730.

QUERCUS Robur. (See p. 82 of this Volume.) The Common Oak: As we have already noticed under Astringents, some practitioners have proposed the employment of this bark, combined with bitters and aromatics, for the cure of agues and various diseases of debility, in place of the cinchona; but where the Peruvian drug can be procured, it should always be preferred. Dose of the pulverized bark from fifteen grains to half a drachm.

SALIX alba. Dicœcia. Diandria. Amentaceæ.

Arbor. Indigénous. (Cortex.) The White Willow. Long experience has shown that this bitter-astringent bark is capable of supplying the place of the cinchona, in the cure of intermittents and remittents, in cases of convalescency, in debilities of the stomach and intestinal canal, in cachectic and dropical cases, &c. In pulmonary hæmorrhage and in phthifical and hectic disorders, it often agrees better than the Peruvian bark. Of its use in the last-mentioned cases, *Coopmans* in his *Oratio de Medicamentis indigenis* (Vide ejus *Opusculorum Physico-Med.* Tom. I.) says "*omnibus quæ aut Asia tulit, aut Africa, aut America, medicaminibus longe præstat: hujus [nempe Salicis] enim cortice non modo recidivas Hæmoptoës, sed et imminentem Phthisin sæpius sanatam vidimus.*" Certainly if there be any European vegetable capable of answering all the medical purposes of the Peruvian bark, it is, this. Of the pulverized willow from half a drachm to a drachm may be given for a dose; but it is best prescribed in decoction, in the proportion of an ounce and a half or two ounces to a pint and a half of water boiled down to a pint. It is variously combined with other auxiliaries, in the same manner as the cinchona. *Stone* in Vol. LIII. of the *Phil. Trans.* 1763. *Gunz* de *Cortice Salicis Cortici Peruviano substituendo*, 1772. *James* on the efficacy of the Willow bark in Intermittents, Vol. II.

1793. *White's* Observations on the Willow bark,
1798.

SALIX fragilis. The fragile willow. Class and order as above. This and some other species of the willow possess the same medicinal virtues as the *salix alba*; what has been said of that will therefore apply to the others.

SWIETENIA febrifuga. Decandria. Monogynia. Trihilatæ. Arbor. East-Indies. (Cortex.) Febrifuge Mahogany. The bark of this species of swietenia is said to be a good substitute for the Peruvian bark. Dose half a drachm. In decoction six drachms to a pint of water. In some parts of the East where the last-mentioned drug is not procurable, it may be useful; but it is not probable that it will be in request or estimation here. *Roxburgh's* Plants of the coast of Coromandel, 1795. To the bark of the common Mahogany (*Swietenia Mahogani*) similar medicinal powers have been attributed. *Murray's* Apparatus Med. Vol. VI. and Medical Facts and Observations, Vol. VI. *Duncan* de Swietenia Soymida, 1794.

TANACETUM vulgare. Syngenesia. Polygamia—Superflua. Compositæ. Discoideæ. Indigenous. (Herba et Flores.) Tansey. What has been said of wormwood and buckbean, will
apply

apply to this bitter vegetable. It is commonly given in infusion. *Thesaur. Med.* p. 243.

VINUM rubrum Portugalicum. Red Port Wine. Properly managed, Red Port is an excellent strengthening medicine in intermittent, low and malignant fevers (*Huxham, Pringle, Cullen, Monro, Blane, Trotter, Smyth, Fordyce*. See Antiseptics) in convalescencies from all fevers; in cachexia, leucorrhœa, diabetes; in certain convulsive affections such as chorea, tetanus, hydrophobia; and generally in those cases in which the Peruvian bark is required. The quantity to be allowed must be regulated by the age and constitution of the patient, and the nature of the disease. In low and malignant fevers and in tetanus, several pints have been given in the course of twenty-four hours; but in ordinary cases of debility, a few glasses (alone or diluted with water) within that space of time will suffice.—Where Red Port disagrees, Sherry or Madeira (lowered with water) may be used in its stead.—Some prefer Claret or Rhenish. (See Stimulants.) *Buckner de Vino, ut medicina, 1736*.—In small quantities Brandy (*Spiritus vini gallicus*) or common Malt-Spirits (*Spiritus Frumenti*) diluted with

water, produce the same tonic effects (see Vol. I. p. 105) as wine; and in certain debilities of the stomach and intestinal canal, and especially in gouty and hysterical cases, they answer better than wine. *Linnaeus* de Spiritu Frumenti, 1764, and reprinted in Vol. VII. of the *Amœnitates Academicæ*.

ACIDUM nitricum. *Acidum nitrosum*, Ph. Lond. et Ed. Spiritus Nitri vulgaris. Nitric Acid. Glauber's Spirit of Nitre. Common Spirits of Nitre. Obtained according to the formula of the Lond. Coll. by mixing sixty ounces (by weight) of purified nitre with twenty-nine ounces (by weight) of vitriolic acid, and distilling: According to the Edinb. Formula by putting two pounds of purified nitre coarsely pulverized, into a glass retort, pouring upon it one pound of vitriolic acid, and distilling in a sand-bath, gradually increasing the fire, until the iron pot is of a dull red heat. In this process the vitriolic acid seizes the alkaline basis of the nitre, and disengages its acid which passes over into the receiver. The residuum at the bottom of the retort is vitriolated kali. The *nitric* acid thus obtained is not quite pure. Some vitriolic acid is forced over along with it, by the degree of heat here specified; it should therefore be redistilled, with a gentler heat, over a fresh quantity

tity of nitre. When duly prepared it is colourless, and on exposure to the air exhales a white vapour; being thus distinguished from what is properly called the *nitrous* acid; which is of a yellowish-red colour and emits red fumes. These striking differences between the acid in these two states, are owing to the greater and less proportion of oxygen combined with its azotic basis; and which (*viz.* the oxygen) is so much greater in the nitric than in the nitrous acid.

The nitric acid, in doses of thirty or forty drops, diluted with water, has an evident tonic effect, and promises to be of use in various cases of debility, whether with or without fever; such as typhus [see Antiseptics] dropsy, jaundice, &c. But within the last four or five years it has been brought forward as a remedy against the venereal disease; and in that point of view has given rise to much controversy among medical practitioners. In this disease it has been given in a much larger quantity than that above-stated, as we shall afterwards mention.

Mr. Scott, a Surgeon in the East-India service, first announced the antisyphilitic powers of this acid in the *Bombay Courier*; and afterwards sent an account of his successful employment of it to *Dr. Beddoes*; at whose recommendation trials were

soon made by various physicians and surgeons, and the result thereof communicated to the public by the last-mentioned Author in his Reports concerning the effects of Nitrous Acid, 1795, in his Collection of Testimonies respecting the Treatment of the Venereal Disease, 1799, in his Contributions to Medical and Physical Knowledge, 1799, and in his Communications respecting the external and internal use of Nitrous Acid, 1800. From these cases as well as from others published by Dr. Rollo, (in his Treatise on Diabetes, 1798) it would appear that this acid has greatly mitigated the venereal symptoms in many cases, and has removed them in others; while in some it has failed. It is given to syphilitic patients in doses of two or three drachms daily, diluted with as many pints of water and sweetened with syrup. This treatment is continued for several weeks if necessary; and the whole quantity of acid thus taken has sometimes amounted to twelve, fourteen or sixteen ounces. During its use the urinary secretion is increased; sometimes the gums and salivary glands are affected; and generally the appetite and spirits are improved. Pain of the stomach or disordered bowels show that the acid is over dosed.

It would have been a happy event for mankind, as many and serious evils arise from the abuse of
mercury,

mercury, if this new remedy had stood the test of more extensive trials; but unfortunately it has not succeeded in other hands; as appears from the facts stated by *Mr. Blair* (Essays on the Venereal Disease, Part. I. and II. 1799, 1800) and by *Mr. Pearson* Surgeon to the Lock Hospital (Observations on the Effects of various articles of the materia medica in the cure of the Lues Venerea, 1800.) These gentlemen assert that in the majority of cases of confirmed syphilis the nitric acid affords but little relief; and that in those instances in which it has caused the symptoms to disappear for a time, they have afterwards returned; thus producing only a temporary and fallacious cure. It cannot, therefore, they contend, supersede the use of mercury in the venereal disease; although in some instances it may be advantageously given in conjunction with that metal; or after a mercurial course, for the removal of weakness and certain painful affections of which such patients often complain. Temperature has a surprising influence on chemical agents of this nature; so that it is not inconceivable that in the warm climates of the East and West-Indies, the nitric acid may suppress or remove venereal affections which resist it here. This acid has been employed externally in the form of a bath and wash, as well as internally in these and other cases. What has been above said

concerning the use of the Nitric Acid in the venereal disease will equally apply to the muriatic acid, the oxymuriatic acid, the oxymuriate of potash, and other similar substances abounding in oxygen, which have lately been proposed as anti-syphilitics.—The *acidum nitrosum dilutum*, Ph. Lond. et Ed. is prepared by mixing together equal quantities by weight of the aforesaid acidum nitrosum and water. A drachm or two may be given for a dose.

(2) *From the Mineral Kingdom.*

ACIDUM vitriolicum. *Acidum sulphuricum.*
(*Acidum vitrioli.* *Acidum sulphuris.* *Spiritus vitrioli.* *Spiritus sulphuris.* *Oleum vitrioli.*)
Vitriolic Acid. Sulphuric Acid. Oil of Vitriol.
Obtained either by distilling vitriolated iron (green vitriol) in a strong heat, or by burning sulphur in vessels constructed for the purpose. This acid in its concentrated state is not used in medicine; but when duly diluted with water it is employed in various diseases. The *Acidum vitriolicum dilutum*, Ph. Lond. consists of vitriolic acid one part (by weight) and water eight parts (by weight.) Dose from fifteen to forty drops. The *Acidum vitriolicum dilutum*, Ph. Ed. (formerly *Spiritus vitrioli tenuis*) consists of vitriolic acid
one

one part, water seven parts. It is therefore stronger than that of the Lond. College. Dose from ten to thirty drops. The diluted vitriolic acid is, in common with other acids, an useful medicine in low and malignant fevers; (see Antiseptics) in the colliquative sweats which occur in hectic fever, in menorrhagia, in large suppurations, and in convalescencies from most fevers. In these cases it is added to decoctions of cinchona bitter-infusions, infusion of roses; or the acid is previously combined with spices, as in the instance of the *Acidum vitrioli aromaticum*, Ph. Ed. formerly Elixir vitrioli acidum (see Antiseptics); or with alcohol, as in the *Spiritus Ætheris vitriolici*, Ph. Lond. et Ed. (see Refrigerants.) The doses of these preparations are mentioned under the classes referred to. Its use in gargles has been noticed under Antiseptics. In certain cutaneous diseases, the diluted vitriolic acid has been successfully administered in large doses such as sixty, eighty, or a hundred drops for a dose, mixed with considerable quantities of mucilaginous liquors, or with syrup and water. (*Smyth* in Vol. I. of Medical Communications.) The *Spiritus Ætheris vitriolici aromaticus*, Ph. Ed. (vulgo Elixir vitrioli dulce) is made by macerating cinnamon, cardamom, angelica and long pepper (in the same proportions and in the same manner as in the *tinctura aromatica*) with the *spiritus ætheris vitriolici*

vitriolici above-mentioned. Dose from twenty to sixty drops. It is an elegant and useful stomachic. Of the *Spiritus Ætheris vitriolici compositus*, Ph. Lond, notice will be taken under Antispasmodics.

ACIDUM muriaticum. - Spiritus Salis. - Muriatic Acid. Spirit of Salt. Applicable to the same cases as the vitriolic acid. Dose ten or twenty drops diluted with water. Used also in gargles. See Refrigerants and Antiseptics.

ARGENTUM nitratum. Nitrated Silver. See Antispasmodics.

ARGILLA vitriolata. Alumen. (See p. 87, 88, of this Volume.) Vitriolated Argill. Alum. This vitriolic salt has been frequently employed with good effect in intermittent fevers, joined with chamomile, gentian, myrrh, or Peruvian bark. (*Thesaur. Med.* p. 234, 235.) Some practitioners have combined it with nutmeg in these cases (*Ibid.* p. 191) but for this purpose canella alba or ginger is a preferable aromatic. Five or ten grains of the alum may be given for a dose. After all, vitriolated zinc will generally answer better for the cure of agues than this salt. In the colica pictonum, alum has been administered in larger doses, viz. fifteen or twenty grains (*Percival's Essays*, Vol. II. and *Quarin Animadversiones*

versiones practicæ, p. 187) combined with mucilages and opium. *Mayerne* gave it as a strengthening medicine in dropsies. For other observations on the uses of this article, see Astringents; where are enumerated the various officinal preparations of which it is an ingredient.

ARSENICUM album. White Arsenic. This mineral substance is generally considered as a calx or oxyd of arsenic; but recent investigations have shown (*Fourcroy* *Connaissances Chimiques*, Tom. V.) that it is an acid; and as such is designated by the name of *arsenious acid*, to distinguish it from the *arsenic acid*; the proportion of oxygen being much greater in the latter than in the former. Thus in regard to oxygenation, there is the same difference between the arsenious and arsenic acid, as there is between the sulphureous and the sulphuric acid.

Like many other poisons, this has been exhibited in minute doses for the cure of various disorders; but particularly for the cure of intermit- tent and remittent fevers (*Friccius* *de virtute venenorum medicâ*, 1717. *Molitor* *de Febre continuâ malignâ et intermittente*, 1736. *Jacobi* in the *Acta Acad. Mogunt.* Vol. I. 1751, and *Fowler's* *Medical Reports on the Effects of Arsenic*, 1786) whooping-cough (*Ferriar's* *Medi-*

cal Histories, Vol. III. and *Duncan's Annals*, Vol. II.) and hydrophobia (*Simmons' Medical Journal*, Vol. X.); not to mention its internal and external use in cancers (*Le Febvre remede pour guerir le cancer*, 1775. *Russ's Medical Inquiries*, Vol. I. and *Justamond on Cancerous disorders*, 1780) and in elephantiasis, and some other cutaneous affections. In these cases it has been given either in its solid or concrete state made into pills (a very dangerous practice!); or in a state of solution, combined with the vegetable alkali, the only way in which it should ever be administered internally. This solution is prepared, according to *Jacobi*, by boiling ten grains of white arsenic, and two drachms of salt of tartar, in four ounces of water, until half the water is evaporated. When cold as much water as has been lost in the boiling is to be added, and a small quantity of spirit of wine. Dose to adults from fifteen to twenty drops three times a day; to children and young persons from five to ten drops, repeated in the same manner. *Fowler's* solution is made by boiling thirty-two grains of white arsenic reduced to a fine powder, and an equal quantity of prepared kali in four ounces of water; afterwards adding to the solution when cold, four ounces more of water and two drachms of spirit of lavender. This is called *the Mineral Solution*, and is given to children in
doses

doses of two to six drops; to adults in doses of ten, twelve, or fifteen drops three times a day.—Would it not be an improvement if the solution were prepared with a double proportion of alkali and water, increasing the number of drops given at a dose, accordingly?—It is scarcely necessary to remark that this as well as *Jacobi's* preparation, is a solution of arseniated potash or arseniated kali; the vegetable alkali uniting during the boiling with the arsenious acid and forming with it a neutral salt, when the quantity of alkali employed is sufficient for that purpose.

Various British practitioners, besides those above referred to, have not scrupled to prescribe this solution in intermittent fevers, and the other cases before-mentioned; asserting that under a cautious and limited exhibition, it has removed those disorders without producing any bad effects upon the constitution. Others on the contrary (*Monro, Baker, de Haen, Stoerck, Quarin*) have condemned its use from a consideration of its poisonous nature, and the mischief and danger they have known it to occasion: Nor can it be denied that the most fatal consequences may arise from its unguarded and long-continued use. Perhaps it should only be resorted to in such obstinate cases as resist the cinchona and other less formidable remedies; and in no instance should its

its exhibition be persisted in beyond three or four days in succession. It should then be suspended for a week or less, and repeated again, if necessary, for three days more; after which it should be entirely laid aside: Otherwise a condition worse than the disease which it is intended to cure, may be induced. Loss of appetite, sickness, tremors, cough, twitching pains in the stomach and bowels, or a looseness, are signs of an over dose. *Wedel de Arsenico*, 1719. *Gmelin's Apparatus Medicaminum*, Vol. I.

CUPRUM ammoniacum. Ammoniated Copper. See Antispasmodics.

CUPRUM vitriolatum. (See Astringents.) Vitriolated Copper. This metallic salt has been employed for the cure of agues by some practitioners in doses of a quarter of a grain repeated three or four times a day. For this purpose it may be made into pills with the extract of cinchona, in the manner directed by Dr. *Donald Monro* (*Med. and Pharmaceutical Chemistry*, Vol. I.) The vitriolated copper has also been given in epilepsy and other convulsive affections; but vitriolated zinc in larger doses will be found to cure these disorders and intermittents, as speedily as the cupreous salt; and being of a less injurious nature should at all times be preferred.

FERRUM.

FERRUM. Mars. (See Vol. I. p. 298.) Iron. It is the remark of a celebrated chemist and physician, that iron is perhaps the only metal among those which possess a medicinal agency, that does not belong to the class of poisons. There is this further peculiarity with regard to iron, *viz.* that it is a constituent part of the blood, and is, in fact, the colouring principle of that vital fluid. It is also present in the muscular fibres, some atoms of it being always detected in the destructive analysis of those parts. Hence it is evident that this metal performs important offices in the animal body; and that material alterations must be produced as it is present in greater or less quantity. And certainly it holds a principal place among those substances which increase the energy of the digestive organs, of the arterial and absorbent systems, and of the fibres destined for the movement of the limbs and other parts of the body. Thus it is very successfully prescribed in all cachectic and leucophlegmatic constitutions; in chlorosis and hysteria; in gouty affections and dyspepsia, whether proceeding from hard drinking or other causes; in venous hæmorrhage, fluor albus, gleet and diabetes; in scrophulous, ricketty and phthisical cases; in mesenteric obstructions, jaundice and dropsy; in intermitting fevers, and in convalescencies from most fevers. Its use in deficient and suppressed menstruation

struation has been already noticed in Vol. I. under Emmenagogues. Concerning its action as a vermifuge, see Anthelminthics. Where there is much fulness of the vessels, or a tendency to inflammatory action, or a bilious and loaded condition of the stomach and intestinal canal, this metal and its preparations are highly improper; nor is it suited to every form and stage of the diseases above enumerated. It is a proof that chalybeate medicines disagree, if the person who is taking them complains of heat, thirst, drowsiness, headache, costiveness, tightness of the breath, &c.

The medicinal efficacy of this metal is often frustrated by over dosing it. In general it answers best when it is gradually introduced into the system, by administering it for a considerable length of time in small quantities, and in a state of minute division by watery solution. Hence the beneficial operation of certain chalybeate springs hereafter-mentioned. It is scarcely necessary to add, that, in order to produce the full effect of iron upon the diseased constitution, its action should be assisted by exercise. With these attentions great and permanent advantages may be derived from it in the disorders above-mentioned.

Iron is variously combined according to the different nature of the disorder in which it is prescribed,

scribed, with bitters, astringents, aloetics, diuretics, opiates. The reguline and calciform preparations (see Vol. I. p. 299) such as the *limatura* and *rubigo* are the least active forms in which iron can be given, and consequently the least adapted to the generality of cases in which a chalybeate is required. They are chiefly suited to those diseases of debility which are accompanied with acidity in the stomach and bowels. Their doses have been mentioned in the place referred to. The *Ferrum ammoniacale*, Ph. Lond. and *Ferrum ammoniatum*, Ph. Ed. (the proper title would be *Ferrum muriatico-ammoniatum*, it being a triple salt) and *Tinctura Ferri ammoniacalis*, Ph. Lond. (see Vol. I. p. 300) have been employed in epileptic, hysterical, chlorotic and scrophulous cases; also in rickets and mesenteric obstructions; but whether they are preferable in any of these instances to vitriolated or muriated iron may be doubted. Their doses have been mentioned at the place referred to. The *Tinctura Ferri muriati*, Ph. Lond. et Ed. (see Vol. I. p. 301) is an active and useful preparation; and is suited to almost every case in which a chalybeate is required; but more especially to cachectic and scrophulous affections; to hæmorrhages and fluor albus; to jaundice and dropsy. It has likewise been administered with great success in spasmodic

Vol. II. L dyfury.

dyfury. (*Cline* in Medical Records and Researches.) The preparation and doses have been mentioned at the place above referred to. At p. 300 of the first Vol. we have noticed the *Ferrum tartarifatum*, Ph. Lond.; but we would here remark that the *Tinctura Ferri tartarifati* (*Marabelli* Apparatus Med. p. 299) or rather *Solutio Ferri tartarifati* is a more elegant and convenient preparation. It is made by mixing in a glass vessel three ounces of iron filings, and half a pound of crystals of tartar with a sufficient quantity of water; then subjecting the mixture to a digestion-heat for eight days, frequently stirring it during that time; afterwards boiling it for a few hours; lastly, filtrating and evaporating the saline liquor to the consistence of a thin syrup. To prevent mouldiness, an ounce and a half of rectified spirit of wine should be added to the solution when cold. It should be kept in a glass bottle well stopped. Dose from twenty to thirty or forty drops, in water or any other vehicle (excepting astringent infusions and decoctions) sweetened with syrup of orange-peel or ginger. In general, aromatic additions render it more efficacious.. This is the least unpalatable of all the preparations of iron.

FERRUM *vitriclatum*. (See Vol. I. p. 301.)
Vitrio-

Vitriolated Iron. Of late years this chalybeate salt has been much used in phthifical cafes, combined with myrrh and very unchemically (see *Thesaur. Med.* p. 240) with vitriolated kali also. In such cafes (*viz.* those of phthisis pulmonum) it often proves too stimulant and heating, in whatever manner it may be combined, in consequence of being administered at an improper time—while some degree of inflammatory action subsists: And though it proves serviceable where no such forbidding circumstance is present; yet is it generally less availing in pulmonary consumption than vitriolated zinc. In all other respects it is applicable to the same cafes as the other preparations of iron. Dose from one to six grains. *Nebel de Medicamentis Chalybeatis*, 1711, and reprinted in *Haller's Disputationes*, Vol. VI. *Alberti de Ferro*, 1738. *Buchner de viribus et usu Ferri in medicina*, 1749.

The mineral waters of Hampstead, Ilington, Tunbridge, &c. of this country; those of Forges, Buffang, Aumale, Passy, &c. in France; those of Pyrmont, Spa, &c. in Germany owe their medicinal virtues to the iron dissolved in them, either by the carbonic acid (fixed air) or vitriolic acid. It is also probable that their chalybeate impregnation has a considerable share in the bene-

ficial effects produced by the hot waters of Bath and the purgative waters of Cheltenham. *Monro's Pharmaceutical Chemistry*, Vol. II. and *Saunders on Mineral Waters*, 1800.

ZINCUM calcinatum. (Flores Zinci.) Calcined Zinc. Flowers of Zinc. See Antispasmodics.

ZINCUM vitriolatum. Vitriolum album. (See p. 93 of this Volume.) Vitriolated Zinc. White Vitriol. This is a valuable tonic medicine, suited to the same cases as the saline preparations of iron, but in many disorders preferable to them, being less stimulant and heating. In particular, it is more efficacious in certain periodic affections such as intermittent fevers (*Blane's Diseases of Seamen*) in certain convulsive disorders such as whooping-cough, chorea, and epilepsy; in debilities of the stomach and intestinal canal; in fluor albus, spitting of blood and uterine hæmorrhage (see Astringents) and in phthisis pulmonalis. Dose from one to three or four grains. In larger doses it acts as an emetic. It may be given either in pills, or dissolved in pure water, or in some of the distilled aromatic waters. It is joined with bitters, astringents and opiates, according to the nature of the complaint in which it is prescribed. Myrrh, cicuta, and digitalis, are useful adjuncts
to

to it in pulmonary cases; alum (*Moseley* on tropical Diseases) and mucilages in diarrhoeas and the advanced stages of dysentery. *Crell de Zinco medico recentius observata*, 1780.

Gas oxygenum. (See Vol. I. p. 162.) Oxygenium. Oxygen gas. Oxygen. Although the inhalation of this gas, duly diluted with common air, has disappointed the expectations that were raised concerning it in certain forms of debility, such as chlorosis, epilepsy, &c. yet in other states of bodily weakness, such as asthmatic and hydropic affections, it has been administered with at least temporary relief. Yet it must be confessed that even in these cases, other powerful medicines have generally been given in conjunction with it; so as to leave it doubtful what quota of the obtained benefit was due to this gas.—Considering its chemical properties, it is reasonable to suppose it might be evolved from a mixture of pulverized manganese and vitriolic acid, by the bed-side of persons labouring under typhus, malignant small-pox, and gangrenous sore throat, with considerable advantage. See the publications referred to in the first Volume, as above;

to

to which add *Alyon* sur les propriétés medicinales de l'oxygène, 1798, and *Hill's* Observations on the Uses of Oxygen, 1800.

